

# DIGITAL ARTS TECHNOLOGY (DAT)

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## **DAT 1000 Graphic Design for DAT (3 Credits)**

This course is an introduction to the basic principles and processes of Graphic Design for Digital Arts. Students will apply design concepts, terminology, and methodologies in the analysis of graphic arts from traditional to computer designed graphics.

*General Education: Creativity (CRTY)*

Previous: Legacy Equivalent(s): GRA\* 150

## **DAT 1001 Introduction to Digital Arts (3 Credits)**

This course is an introduction and overview of the digital arts. The basic elements, components and skills required for digital art development and production will be defined and explored. Topics include; applications of digital arts, presentation software, visual design principles, digital media design, Web design, configuring a multimedia system, emerging technologies, multimedia components, and interactive multimedia development.

Prerequisites: CSA 1110 or equivalent experience

Previous: Legacy Equivalent(s): DAT\* 101

## **DAT 1002 Introduction to Photography (3 Credits)**

Introduction to the fundamentals of photography concentrating on the use of the camera as a form of expression and communication. Manual camera functions and basic image editing procedures will be covered. Photographic composition, genres and ethics will also be considered through lectures and assignments. Note: students enrolled in this course will be responsible for purchasing a DSLR Camera or other approved camera with manual functions.

Previous: Legacy Equivalent(s): DAT\* 102

## **DAT 1111 Foundations of Web Development (3 Credits)**

This is an introduction to HTML, CSS, and JavaScript in client- side web development. The process of planning, development, and implementation of web sites is covered.

Prerequisites: DAT 1001

Previous: Legacy Equivalent(s): DAT\* 104

## **DAT 1125 Interactive Media Design (3 Credits)**

Interactive Media Design is a practical and theoretical approach to the development and application of interactive digital media for desktop, portable devices, and Web-based applications. Learners will design, develop, and present interactive digital media content.

Prerequisites: DAT 1111 or DAT 1221

Previous: Legacy Equivalent(s): DAT\* 116

## **DAT 1211 Digital Graphics (3 Credits)**

Tools and concepts learned in this course are the backbone of all the other digital art technology courses. Primarily working with raster graphics, but touching on vector imaging, the overarching idea is to gain a strong working knowledge of the tools and design principles to produce convincing composite images.

Prerequisites: DAT 1001

*General Education: Creativity (CRTY)*

Previous: Legacy Equivalent(s): DAT\* 108

## **DAT 1221 Digital Layout (3 Credits)**

This course introduces page layout software that aids in the design and publishing of high-quality documents in both print and digital formats. Basic design principles will be addressed in addition to the technical aspect of creating both static and interactive documents.

Prerequisites: DAT 1001

Previous: Legacy Equivalent(s): DAT\* 106

## **DAT 1311 2D Animation for Digital Arts (3 Credits)**

This course stresses the effective utilization of the animation pipeline to create motion graphics that illustrate proper timing and composition. The 12 Principles of Animation will be introduced and explored. Understanding and implementing solid asset design that will function properly when put into a project pipeline will also be covered.

Prerequisites: B or higher in DAT 1001

Previous: Legacy Equivalent(s): DAT\* 205

## **DAT 1321 Fundamentals of 3D Graphics (3 Credits)**

This course stresses the effective utilization of the animation pipeline to create motion graphics that illustrate proper timing and composition. The 12 Principles of Animation will be introduced and explored. Understanding and implementing solid asset design that will function properly when put into a project pipeline will also be covered.

Prerequisites: B or higher in DAT 1001

Previous: Legacy Equivalent(s): DAT\* 212

## **DAT 1411 Video Foundations (3 Credits)**

This course is an introduction to the three phases of video production: pre-production, production, post-production. Students will script, storyboard, shoot, and edit for the appropriate audience and platform.

Prerequisites: DAT 1001

Previous: Legacy Equivalent(s): DAT\* 110

## **DAT 1511 Electronic Audio Production I (3 Credits)**

This course is an introduction to the art and science of electronic music and audio production. The history, elements, and tools of electronic music and audio will be defined and explored. Exposure to acoustics theory, analog and digital audio principles, recording engineering techniques, sound sampling, electronic synthesis, MIDI, and audio for multi-platform applications are some of the aspects that will be covered.

Prerequisites: DAT 1001 or instructor permission

Previous: Legacy Equivalent(s): DAT\* 218

## **DAT 1525 Acoustics and Sound Design (3 Credits)**

The advanced functions of the properties of sound, human hearing, electro-acoustic instruments, digital sound reproduction systems, sound synthesis, and psychoacoustics are examined. Students will develop and participate in a number of practical sound design and post-production activities focusing on exploration of Foley design and field recording techniques.

Prerequisites: DAT 1001 or instructor permission

Previous: Legacy Equivalent(s): DAT\* 220

## **DAT 2131 Multi-platform Web Development (3 Credits)**

This is an extension of the Foundations of Web Development course where students will gain a working knowledge of the different web development platforms in use today including social media. The focus will be developing the skill to quickly adapt to emerging technology.

Prerequisites: DAT 1111

Previous: Legacy Equivalent(s): DAT\* 215

**DAT 2145 Programming for the Arts (3 Credits)**

Introduction to programming as it relates to the arts by using current technologies applied to audio, video, 3D, game engines, as well as physical elements.

Prerequisites: DAT 1111 or any programming language  
Previous: Legacy Equivalent(s): DAT\* 240

**DAT 2211 Image Compositing (3 Credits)**

As a continuation of the DAT 1211 course, you will utilize the knowledge gained there and add more advanced tools and techniques. This course focuses on manipulating raster graphics in a non-destructive manner, extending artistic capabilities and increasing efficiency.

Prerequisites: DAT 1211  
Previous: Legacy Equivalent(s): DAT\* 230

**DAT 2221 Vector Imaging (3 Credits)**

This course is an introduction and overview digital illustration. The basic elements, components and skills required for development of digital illustration capabilities will be defined and explored.

Prerequisites: DAT 1211  
Previous: Legacy Equivalent(s): DAT\* 236

**DAT 2321 3D Animation (3 Credits)**

This course is a continuation from where the Fundamentals of 3D Graphics course left off. The 12 principles of animation will be employed, as the focus is on animation, with continued exploration of lighting and rendering.

Prerequisites: DAT 1321  
Previous: Legacy Equivalent(s): DAT\* 234

**DAT 2411 Video Editing and Enhancement (3 Credits)**

You will utilize the knowledge gained in the Video Foundations course while introducing more complex editing techniques into the process. Advanced editing techniques, color correction, and sound sweetening are some of the skills that will be refined.

Prerequisites: DAT 1411  
Previous: Legacy Equivalent(s): DAT\* 224

**DAT 2421 Motion and Special Effects (3 Credits)**

This class provides advanced skills that are gained from merging the compositing and editing concepts of Digital Graphics with Video Foundations. Special effects, motion graphics, and chroma-keying are some skills that will be developed.

Prerequisites: DAT 1411  
Previous: Legacy Equivalent(s): DAT\* 226

**DAT 2511 Electronic Audio Production II (3 Credits)**

This course provides intermediate instruction in digital synthesis, digital sequencing software, and electronic composition methods. Students will complete a series of directed and independent compositional projects in a variety of styles with attention to construction of timbres, additive and subtractive synthesis, digital sampling, signal processing, and algorithmic composition.

Prerequisites: DAT 1511  
Previous: Legacy Equivalent(s): DAT\* 219

**DAT 2535 Studio and On-Site Recording (3 Credits)**

This course presents an in-depth study of the techniques and methodologies used in studio and live recording. In addition to classroom assignments and exercises, students will be expected to complete field work resulting in the recording, editing, and mastering of a live or studio project. Exposure to multi-track recording, studio acoustics and design, mixing consoles, microphone placement techniques, signal processors, and studio session procedures are some of the many aspects to be covered.

Prerequisites: DAT 1511 or DAT 1525  
Previous: Legacy Equivalent(s): DAT\* 237

**DAT 2990 Digital Arts Project (3 Credits)**

The capstone course for all Digital Arts Technology degree seekers, each student will produce a significant and unique project in the concentrated area of their choice under the approval and guidance of an advisor. Appropriate documentation will accompany the project, which can be a website, an interactive magazine, a 30 second to 1.5-minute animation, a 3 to 7-minute video, a demo reel, an EP or countless other portfolio building options.

Prerequisites: One of: DAT 1525, DAT 2131, DAT 2145, DAT 2211, DAT 2221, DAT 2321, DAT 2411, DAT 2421, instructor permission  
Previous: Legacy Equivalent(s): DAT\* 290