3-D ART FOR GAMES MINOR REQUIREMENTS (24-27 UNITS)

The focus of the 3-D art for games minor is a trans-disciplinary approach that incorporates the creative, technological and team-based communication skills necessary to develop 3-D art skills for video games. It includes a choice of courses from fine arts, computer science, information technology, interactive media, and animation and digital arts. In preparation for the transition from the theoretical assignment to professional practice, students will present game prototypes to outside professionals at “Demo Days” at the end of each semester.

16 units must be unique to the minor and outside of your home department.
Successful completion of the following courses with a minimum of straight “C.”

Students interested in this minor are required to:
1) Have a declared major, and complete a minimum of 32 units of college-level courses with an overall GPA of 2.75 or higher.
2) One course in progress or completed towards the minor prior to submitting an application.
3) Submit an application to the Roski Student Affairs Office. Applications are available in HSH 101 or online at http://roski.usc.edu/undergrad/minors/info.html

Required Lower-Division Courses (9 units):

CSCI 281: Pipelines for Games and Interactives (3 units)
The course explores the aesthetic development/technical implementation necessary to achieve unique, compelling, intuitive visual design in games. Students will develop group visual game design portfolios.

FASC 106: Sculpture I (4 units)
This course is a practical and theoretical introduction to sculpture as dimensional manipulation. This course will guide you through an exploration of form, mass, gravity, surface, structure, and associative recognition in three-dimensional art.

ITP 215 LX: 3-D Modeling, Animation, and Special Effects (2 units) Recommended Preparation: Knowledge of any 2-D paint, drawing or CAD program
Students will develop a 3D animation from modeling to rendering: Basics of surfacing, lighting, animation and modeling techniques. Advanced topics: compositing, particle systems, and character animation.

Required Upper-Division Courses (12-14 units):

CTIN 488: Game Design Workshop (4 units) Recommended Preparation: CTIN 190 and CTIN 483 * Can be taken as elective if not taken as upper-division
Theory and evaluation of interactive game experiences and principles of game design utilizing the leading software approaches and related technologies.

CSCI 491aBL: Final Game Project (4 units-a, 2 units-b) * May take both 491a and b for credit – 6 units total. Must take a before taking b.
Design, iterative prototyping, and development of a 1st playable level.

OR

CTIN 491L: Advanced Game Project I (4, max 8 units) Recommended Preparation: CTIN 483, CTIN 484, CTIN 488, and CTIN 489 * Can be taken as elective if not taken as upper-division requirement. May take it up to 2 times for credit – 8 units total.
Students work in teams on pre-production and prototyping of a functional digital game suitable for distribution via the web and/or submission into independent games festivals.

FASC 436: Art and Technology (4 units)
The emphasis of this class is conceptual thinking, directed research, and personal investigation in the development of individual project proposals that investigate three-dimensional video capture and graphic production. Focus is on the appropriate stereoscopic or 3-D graphic technology in the communication of student projects.

Electives (4 units) chosen from the following:

CSCI 180: Survey of Digital Games and Their Technologies (3 units)
Historical, technical, and critical approach to the evolution of computer and video game architectures and game design from its beginnings to the present day.

CTAN 330: Animation Fundamentals (2 units)
This course is an introduction to the fundamentals of animation, covering such topics as timing, anticipation, reaction, overlapping action, and metamorphosis.

CTAN 451: History of Animation (2 units)
In-depth survey of historical developments, styles, techniques, theory and criticism of animation as an art form.

CTAN 452: Introduction to 3-D Computer Animation (2, max 4 units) * May take it up to 2 times for credit – 4 units total.
Lecture and laboratory in computer animation: geometric modeling, motion specification, lighting, texture mapping, rendering, compositing, production techniques, systems for computer-synthesized animation.

CTIN 483: Introduction to Game Development (4 units)
This course is an introduction to technical and creative aspects of game development, including the art of creating the digital game prototype and development of 2D games.
CTIN 489: Intermediate Game Design Workshop (2 units)  *Prerequisite: CTIN 483, CTIN 488 or CTIN 541*  *Must take it concurrently with CTIN 484L.*
A follow-up to the introductory game design class, this course will introduce more advanced concepts in game design and game theories, including ideation, digital prototyping and level design.

CTIN 493L: Advanced Game Project II (2, max 4 units)  * May take it up to 2 times for credit – 4 units total.*
Students work in teams to polish and finalize a functional digital game suitable for distribution via the web and/or submission into independent game festivals.

FACE 214: 3-D/Actual and Virtual (4 units)  * When Offered.*
This course is an introduction to modeling as it exists in contemporary art. During the first half of the semester, students will be introduced to beginning techniques of hand-building with clay in the Galen Ceramics Studio, and to basic computer modeling, keyframe animating, rendering, and editing in Autodesk 3ds Max. In the second half of the semester, students will be encouraged to develop projects that combine material and digital media and provoke conversations between the two.

FACS 150: Visual Culture and Literacy (4 units)
The course examines major developments in modern and postmodern visual culture. Beginning with the late 19th century, the course will look closely at different modes of cultural production – including art, film, and design.

FACS 350: Art Theory and Criticism (4 units)
Our focus will be on developments in the 20th century. We will consider the general theories put forth by philosophers, social scientists and cultural commentators. We will look directly at films, fiction, plays, and poetry as well as visual art to see how it fits into an intellectual context, and we will consider closely the musings of art critics themselves on the subject.

FAIN 210: Introduction to Digital Photography (4 units)
This introductory class will acquaint students with the computer, the digital camera, Adobe Photoshop, and digital printing from a fine arts standpoint. Theoretical lessons will establish a strong platform for progress and experimentation.

FAIN 220: Introduction to Video and Time-based Experimentation (4 units)
This class will explore video-art by learning the digital video camera, Final Cut Pro, Compressor and DVD Studio Pro software, lighting and sound. Students will experiment with multiple modes of execution, presentation, and distribution.

FAIN 315: Internet Studio: Online Experimentation and Expression (4 units)
This studio course is an experimental forum for questioning the potential of the Internet and creating online projects that push its boundaries. Students will be exposed to an array of experimental websites, online archives, digital mash ups, community projects, and social spaces that will inspire their own original online ideas.

FAIN 330: Ideas in Intermedia (4, max 8 units)  * May take it up to 2 times for credit – 8 units total.*
This course will examine the themes, influence, and imagery of the occult within cultural production. Heretical, oppositional, and alternative ideologies will be explored as a kind of metaphysical avant-garde in which aesthetic, personal, and transcendental beliefs intersect.

ITP 280: Video Game Production (4 units)
History of video games; overview of game genres; phases of video game development (concept, preproduction, production, post-production); roles of artists, programmers, designers, and producers.

### 3-D Art for Games Minor Sample Course Sequence

* This is one way to fit all the requirements into three semesters.

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