



**TRINITY VALLEY COMMUNITY COLLEGE
ADMINISTRATIVE-MASTER SYLLABUS**

The Administrative- Master Syllabus is an administrative tool; it is **not intended to be distributed to students.** It is the intention of this Administrative-Master Syllabus to provide a general description of the course, outline the required elements of the course and to lay the foundation for course assessment for the improvement of student learning, as specified by the faculty of TVCC, regardless of who teaches the course, the timeframe by which it is instructed, or the instructional method by which the course is delivered. It is not intended to restrict the manner by which an individual faculty member teaches the course but to be an administrative tool to aid in the improvement of instruction. The Administrative-Master Syllabus will demonstrate that there is consistency and comparability in course offerings.

Course Title

Introduction to Technical Animation and Rendering

Course Prefix and Number

ARTV 1402

Department – Division

Drafting – Vocational/Technical

Course Type – select from one of the following categories.

- Academic General Education Course (from ACGM – but not in TVCC Core)
- Academic TVCC Core Course
- WECM Courses

Semester Credit Hours: Lecture Hours: Lab/other hours

Semester Credit Hours	Lecture Hours	Lab/Other* Hours
4	3	3

Other hours include practicum, clinical or other types of non-lecture instruction. *If other, please specify: _____

Course Catalog Description

This course introduces the basic terminology and concepts associated with the development of computer modules used in technical computer animation. Topics include basic animation, principles, model creation, light sources, camera positioning, rendering as well as importing and modification of external files, course projects reflect current practices in the architectural, engineering, or construction disciplines.

Prerequisites/co requisites

NONE

Topical Outline

- 1) Basics of 2D creation
 - a) Object types
 - b) Precision tools
- 2) Basics of Editing
 - a) Object selection
 - b) Edit menu
 - c) Combining objects
 - d) Transforming and cloning
- 3) Basic of 3D Modeling
 - a) Primitives
 - b) Shapes
 - c) Parametric Modifiers
- 4) Advanced Modeling
 - a) Compound Objects
 - b) Connecting
 - c) Shape merge
- 5) Material Basics
 - a) Material editor
 - b) Material/Map Browser
 - c) Applying materials
 - d) Mapping to create Special Effects
- 6) Rendering
 - a) Cameras
 - b) Lights
 - c) Render scene dialog box
- 7) Animation
 - a) Basics
 - b) Track view
 - c) Edit Window
 - d) Time elements
 - e) Controllers

<p>Course Learning Outcomes</p>
--

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

1. Demonstrate an understanding of three-dimensional creation concepts.
2. Demonstrate an understanding of building three-dimensional models.
3. Demonstrate an understanding of three-dimensional model display methods.
4. Demonstrate an understanding of basic procedures of rendering, which is a technique of applying color, and light to the surfaces and faces of a three-dimensional model.
5. Demonstrate an understanding of advanced procedures of rendering, which is a technique of applying realistic materials and textures to the surfaces and faces of a three-dimensional model.
6. Demonstrate an understanding of the application of lighting methods and shades and shadows to produce a realistic image.
7. Demonstrate an understanding of the creation of custom materials for object rendering.
8. Demonstrate an understanding of the basic concept of animation.
9. Demonstrate an understanding of animation replay speeds and frame rates.
10. Produce mechanical design renderings and animation presentations.

<p>Relationship to General Education Outcomes – In addition to the core competencies, Trinity Valley Community College has established ten general education goals which specify knowledge and skills that students should gain from completing courses in the various component areas of the core curriculum. Information regarding curriculum and assessment as a means for the improvement of student learning through the general education component. (Select all that apply.)</p>
--

Mark with an "X"	General Education Outcome
	A. To communicate clearly and effectively in both oral and written English.
	B. To improve reading skills focused on comprehending, analyzing, interpreting, and evaluating printed materials.
	C. To understand mathematical information and utilize mathematical skills.
	D. To demonstrate qualitative and quantitative critical thinking skills.
	E. To understand and appreciate cultural and ethnic diversity.
X	F. To utilize computer based technology in accessing information, solving problems, and communicating.
	G. To recognize and evaluate artistic achievements in the visual and performing arts.
	H. To improve basic understanding of political, economic, and social systems.

	I. To demonstrate knowledge of the physical universe and living systems.
	J. To develop skills and strategies to become an engaged learner.

Required Text(s)

NONE

Optional Text(s)

NONE

Material/Technology to be supplied by the student.

NONE

Course Requirements/Grading System – describe any course specific requirements such as research papers or reading assignments and the generalized grading format for the course; not intended to restrict the individual nature by which each faculty member who teaches the course determines course requirements and final student performance, but should offer consistency within reason for all sections taught for those departments without a standardized format.

Lab Assignments 80%
 Final Project 10%
 Final Exam 10%
 100%

Approvals – the contents of this document have been reviewed and are found to be accurate.

Prepared by	Signature	Date
Department Head	Signature	Date
Division Chair	Signature	Date
Vice President	Signature	Date