

University of Arkansas - Fort Smith
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General Syllabus

DFTG 2624 Computer-Aided Design (CAD) Model and Render Enhancement

Credit Hours: 4 Lecture Hours: 4 Lab Hours: 0

Prerequisite: Declared CAD Major or consent of instructor

Effective Catalog: 2023-2024

I. Course Information

A. Catalog Description

Extensive coverage of skill sets necessary to successfully use photo editing software in multiple fields.

B. Additional Information

This course introduces the student to using multiple and varied approaches to visual and digital problem solving. Investigation into alternate creative thinking techniques is explored and encouraged. Projects involve collaboration, problem solving, and meeting deadlines. Students will interpret the skill sets learned to successfully use various software packages in a variety of digital design creation, integration, video and 3D techniques.

II. Student Learning Outcomes

A. Subject Matter

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

1. Interpret and illustrate using basic tools to edit and enhance conceptual renders, portfolio work, and presentation sets.
2. Perform and illustrate creations using vectors and pen tools.
3. Interpret and illustrate use of color profiles and color swatches.
4. Demonstrate and apply use of brushes and create custom presets.
5. Illustrate creating, importing, and editing videos with images, text and audio.
6. Interpret and classify techniques for importing copies of CAD and 3D models for presentation set up.
7. Demonstrate creating, editing and modifying texture materials and maps for use in CAD software.

8. Demonstrate and apply techniques learned to create a professional portfolio of work and presentation.

B. University Learning Outcomes

This course enhances student abilities in the following areas:

Analytical Skills

Critical Thinking: Students will identify problems/issues when referencing works other than their own. Students will research, evaluate, and compare information from varying sources in order to evaluate authority, accuracy, and relevance to the image material used.

Communication Skills (written and oral)

Students will communicate proficiently and compose coherent professional projects appropriate to the intended audience.

Ethical Decision Making

Students will define different types of Creative Commons attributions and federal copyright regulation and identify the type of copyright to which given examples belong.

III. Major Course Topics

- A. Review basic tools and interfaces of various software used in conceptual portfolio work.
- B. Vectors, Pen tool and color profiles.
- C. Custom brushes, texture material and map creations.
- D. Creating and editing Video.
- E. Importing and modifying 3D and CAD models for presentation.
- F. Integrated Final project including video, portfolio of work, and presentation to peers including printed visual aids.