Fairfax Collegiate

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Architectural Design 5-6 Syllabus

Course Goals

1 Introduction to Design
Students learn how to use digital design software to draft, model, and design buildings.

2 Architectural Design
Students learn about what is feasible in architecture, and they use this knowledge to design a house.

Course Topics

1 Google SketchUp
Students learn how to use the Google SketchUp software to draft and model objects.

2 Two-Dimensional Drafting
Students learn how to use software to create two-dimensional drafts of buildings.

3 Three-Dimensional Modeling
Students learn how to create three-dimensional models of buildings using design software.

4 Modeling a House
Students learn how to model various aspects of a house, including roofs and multiple stories.

5 Issues with Designs
Students discuss the functionality of their designs and learn about what is feasible in architecture.

6 Constructive Criticism
Students learn how to critique others' work in a constructive way.

7 Attention to Detail
Students take time to learn how to add details to their models, making them more realistic.

8 Presentation of a Design
Students present their final model houses to the class.

Course Schedule

Day 1
Introduction to Google SketchUp
Students become familiar with the Google SketchUp software which they will use for the remainder of the course.

Two-Dimensional Drafting

Students begin to learn how to create two-dimensional drafts using design software.

Day 2

2D Drawing Activity
Students use the knowledge they learned the previous day to create a two-dimensional floor plan.

Three-Dimensional Drafting
Students begin to learn how to use the three-dimensional capabilities of Google SketchUp.

Day 3

Transformations
Students practice transforming two-dimensional drafts they have previously made into three-dimensional models.

Introduction to 3D Warehouse
Students learn how to access the Google 3D Warehouse and use its content in their three-dimensional models.

Using Components
Students practice adding realistic components from the 3D Warehouse and SketchUp into the models they have created.

Day 4

Modeling a Basic Building
Students learn how to create a simple building with a roof using Google SketchUp.

Hip Roof
Students learn how to add a hip roof to a building.

Multiple Stories
Students create a house with multiple stories and add a roof, assisted by the knowledge they have gained throughout the week.

Day 5

Color and Details
Students learn how to add color to models of houses and to specify the type of flooring and roofing.

Day 6

Planning a House
Students discuss various features of a house to make a realistic model of one as a final project.

Final Project Introduction
Students develop ideas for the design of their ideal house.

Day 7

Preliminary Designs
Students produce sketches of the designs of their ideal houses and constructively critique one another.

Design Revision

Students revise their preliminary designs and begin to create two-dimensional drafts of their ideal houses on Google SketchUp.

Day 8
Two-Dimensional Draft Completion
Students complete the two-dimensional draft of their ideal houses and move on to the three-dimensional modeling phase.

Day 9
Final Model Designs
Students complete the three-dimensional design of their ideal houses.

Day 10
Ideal House Presentation
Students present the ideal houses they designed to the rest of the class.

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