This course provides an introduction to technical drawing and rapid visualization techniques for the presentation of design concepts employed by professional design studios. ADVISORY: Design G131 and G132, or completion of either G131 or G132 with concurrent enrollment in the other.

COURSE LEVEL STUDENT LEARNING OUTCOME(S) Supported by this course:
1. demonstrate the ability to think in three dimensions.
2. interpret reflections and reflective surfaces.
3. use gradation to differentiate surfaces to make surfaces read properly.
4. interpret and apply different types of shadows.
5. generate lab drawings and renderings for accurate and dramatic presentations.
6. explain the technical differences between a rapid visualization drawing and a presentation rendering.
7. use and understand the different types of rendering media used by designers.
8. apply independent design ideas to required projects.

COURSE OBJECTIVES:
1. develop the ability to think in three dimensions.
2. understand reflections and reflective surfaces.
3. utilize gradation to differentiate surfaces to make surfaces read properly.
4. understand and apply different types of shadows.
5. understand and use the different types of rendering media used by designers.
6. complete lab drawings and renderings for accurate and dramatic presentations.
7. apply independent design ideas to required projects.
8. understand the technical differences between a rapid visualization drawing and a presentation rendering.

COURSE CONTENT:
LECTURE CONTENT:
1. Design lettering as it applies to rapid visualization techniques.
2. Technical mechanism sketching as it applies to rapid visualization techniques.
3. Use of instruments including templates, ellipses, sweeps and curves as they apply to rapid visualization techniques.
4. Geometric shapes, construction and basic modeling making for rapid visualization concepts.
5. Orthographic multi-view projections as they apply to rapid visualization techniques.
6. Oblique, axonometric, and perspective views as they apply to rapid visualization techniques.
7. Sections as they apply to rapid visualization techniques.
8. Reflections and highlights as they apply to rapid visualization techniques.
9. Rapid visualization techniques for various materials, lighting and surface applications.
10. Rapid visualization techniques for gradation of different surfaces and lighting conditions.
11. Pencil, pen, marker, chalk, and airbrush techniques.
12. Acquisition of technical knowledge, attitudes, and habits conducive to attaining a successful career in design.
LABORATORY CONTENT:

A. Rapid visualization of desk lamp, CD player, and dual use chair projects, to include human scale, exploded views and detail supporting views as appropriate.

B. Rapid visualization of human scale, exploded views and detail views, to include human scale, exploded views and detail supporting views as appropriate.

C. Rapid visualization of ATM two sided kiosk project including creative ideation, to include human scale, exploded views and detail supporting views as appropriate.

D. Rapid visualization of metamorphoses project from geometric shapes to organic, to include human scale, exploded views and detail supporting views as appropriate.

E. Application of traditional brand name to all new product line with traditional styling cues to include human scale, exploded views and detail supporting views as appropriate.

F. Use of a series of thumbnails to generate ideas into quick sketch drawings to prep a presentation package including: a glamour shot, support drawings and trend board, to include human scale, exploded views and detail supporting views as appropriate.

G. Optional interior or product design project. Ideation thumbnails and development.

METHODS OF INSTRUCTION:

A. Lecture:

B. Lab:

C. Independent Study:

INSTRUCTIONAL TECHNIQUES:

COURSE ASSIGNMENTS:

Reading Assignments

Text Book
Lecture notes and instructor prepared materials

Out-of-class Assignments

Research Library Media Center or Internet

Writing Assignments

Analyze, apply, and solve design problems requiring the knowledge, skills and techniques covered in class lectures, demonstrations, activities and research assignments.

Demonstrate skills through safe and proper usage of tools and equipment in rapid vis lab.

Complete assigned drawing and rendering problems requiring the special techniques taught in class.

Compile a class notebook and project preparation for portfolio.

METHODS OF STUDENT EVALUATION:

Midterm Exam
Final Exam
Short Quizzes
Written Assignments
Projects (ind/group)
Problem Solving Exercises
Skills Demonstration

Demonstration of Critical Thinking:

The student will explain to the instructor's satisfaction why certain techniques taught in class and covered in the reading assignments are used to solve each assigned drawing and rendering problem.

The student will apply critical thinking/problem solving skills to their class drawings and renderings.
Required Writing, Problem Solving, Skills Demonstration:

Analyze, apply, and solve design problems requiring the knowledge, skills and techniques covered in class lectures, demonstrations, activities and research assignments.

Demonstrate skills through safe and proper usage of tools and equipment in rapid vis lab.

Complete assigned drawing and rendering problems requiring the special techniques taught in class.

Compile a class notebook and project preparation for portfolio.

TEXTS, READINGS, AND RESOURCES:

TextBooks:

Other:
1. Class Syllabus
   Instructor Handouts
   Project related lab supplies

LIBRARY:

Adequate library resources include:

Comments:

Attachments:

[Attached Files]