

I. COURSE DESCRIPTION:

Department Information

Division: Science & Math Division

Department: Architecture

Course ID: ARCH 101

Course Title: Environmental Design II

Units: 3

Lecture hrs: 2

Laboratory hrs: 3

Prerequisite: ARCH 100

Co-requisite: None

Departmental Advisory: None

Catalog and Schedule Description: A continuation of ARCH 100, with the emphasis on composition and basic design is applied to both architecture and art. A series of projects will introduce students to the use of line, color, form and materials, and will promote awareness of environmental concerns.

II. NUMBER OF TIMES COURSE MAY BE TAKEN FOR CREDIT: 1

III. EXPECTED OUTCOMES FOR STUDENTS:

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

- A. Critically evaluate architecturally-related information, both written and graphic
- B. Synthesize architectural information on specific subjects and formulate oral and graphic presentations
- C. Identify design principles and apply design principles to new situations
- D. Interpret the elements of design and formulate them into specific applications
- E. Construct and present compositions explaining the elements of design
- F. Develop proficiency in drawing and sketching

IV. CONTENT:

- A. Review of Concepts from Arch 100
 1. A Definition of Architecture
 2. The Purpose of Architecture
 3. Elements of Place
 4. American Institute of Architects
 5. Small Practice
 6. Large Practice
 7. Historic Preservation/Rehabilitation/Reuse
 8. Engineering
 9. Environmental
 10. Planning
 11. Landscape Architecture
 12. Interior Design
 13. Entertainment
- B. Drawing Skills
 1. Contour Drawing
 2. Gesture Drawing
- C. Architectural Conventions
 1. Architectural Drawings
 - a.) Site plans
 - b.) Floor plans
 - c.) Elevations
 - d.) Sections
 - e.) Axonometric drawings

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- f.) Perspectives
- 2. Architectural Tools
- 3. Presentations Methods
- D. Positive/Negative Space-Figure/Ground
 - 1. Definition of Figure
 - 2. Definition of Ground
 - 3. Analysis of Space
- E. Tone
 - 1. Definition of Tone
 - 2. Analysis of Tone in the Environment
- F. Texture
 - 1. Definition of Tone
 - 2. Application of Texture in Environmental Design
- G. Color
 - 1. Definition of Color
 - 2. Color Theories
 - 3. Color Wheel
 - 4. Application of Color in the Environment

V. METHODS OF INSTRUCTION:

- A. Lecture –Accompanied by the use of:
 - Overheads
 - Board notations or diagrams
 - Demonstration
 - Slides
 - Videos
- B. Class and small group discussions Class-wide interactive discussion is used as a means of provoking thought and evoking critical thinking skills.
- C. Critical evaluation of videotapes, film, audiotapes, newspaper, journal articles
- D. Field trips to:
 - Architectural offices
 - Construction sites
 - Professional reprographics facilities
 - Professional offices related to the architectural fields
 - Manufacturing sites
 - Significant structure sites
- E. Demonstrations : Techniques of using the tools available to address the task

VI. TYPICAL ASSIGNMENTS:

- A. Reading Assignment. Reading assignments are required and may include (but are not limited to) the following:
 - 1. Example : Read Ching and discuss examples of drawings in current issue of progressive architecture
- B. Writing Assignments. Writing assignments are required and may include (but are not limited to) the following:
 - 1. Example : Compare and contrast 2 color theories
- C. Critical Thinking Assignment. Critical thinking assignments are required and may include (but are not limited to) the following:
 - 1. Sample Project: Environmental Assessment
 - a.) Students are to select 2 spaces on campus. For each they will develop a set of visual notes (sketches, plans, elevations, diagrams, and notes) to describe the space

and the activities taking place within them. Define the sense of place. For each, the time, the major system (spatial, enclosure, movement); lighting; circulation; and major areas of significance are to be noted.

Students are to consider:

- How the scale of the place affects the activities taking place. How does the size and scale assist the activities?
 - What is the orientation of the space to the sun, views, etc? Assess the reasons for this orientation.
 - How do people use the space over time? Was this the intent of the designer?
 - How is it constructed?
 - What are the materials? Why were they selected?
 - Does this space work?
 - What changes would be suggested, following the observations and analyses?
- b.) Using the architectural conventions covered in class, students are to graphically depict the places studied on a 24" x 36" presentation board.
 - c.) Students are to present their findings to the class
2. Sample Project: Drawing Skills/Hand-Eye Coordination
 - a.) Students are to collect materials around campus.
 - b.) Using these found materials, and India ink or black Tempera paint, students are to prepare a series of contour drawings, while focusing on the subjects, rather than the drawing paper.
 - i. Using the same found materials, students are to prepare a series of gesture drawings of a variety of subjects. Students are to focus on the subjects, rather than the drawing paper.
 3. Sample Project: Figure-Ground Analysis
 - a.) Students are to select an image of interest from a book or magazine.
 - b.) The image is to be graphically reproduced and then dissected into a grid pattern.
 - c.) The grid-enclosed images are to be selected and each placed onto a 1'-0" board.
 - d.) Each square is to be connected to the others to create a 1'-0" cube.

VII. EVALUATION:

A student's grade will be based on multiple measures of performance and will reflect the objectives explained above. A final grade of "C" or better should indicate that the student has the ability to successfully apply the principles and techniques taught in this course. These evaluation methods may include, but are not limited to, the following:

- A. Methods of Evaluation:
 1. Class participation
 2. Critique of individual projects
 3. Final portfolio evaluation
- B. Frequency of Evaluation:
 1. Daily-Students are evaluated on daily attendance, participation and their apparent effort to learn
 2. Approximately weekly- Students are awarded grades on completed projects
 3. Final review of student notebook

VIII. TYPICAL TEXTS:

1. Architectural Graphics, Ching, Francis D. K.; John Wiley & Sons, 2002.
2. Environmental Design: Methods and Tools, Abele, Eberhard, et al.; Springer, 2004.
3. Architectural Representation Handbook: Traditional and Digital Techniques for Graphic Communication, Laseau, Paul; McGraw Hill, 2000.
4. Graphic Thinking for Architects & Designers, Laseau, Paul; Wiley, 2000.

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IX. OTHER SUPPLIES REQUIRED OF STUDENTS:

DRAFTING PAPER

DRAWING PAPER

ILLUSTRATION BOARD

X-ACTO KNIFE AND BLADES

A VARIETY OF DRAWING MEDIA: CHARCOAL, CONTE CRAYONS, PAINT

T-SQUARE

TRIANGLES

ARCHITECTURAL SCALE

DRAFTING TAPE

TECHNICAL PENS/FELT TIP PENS

SUTTING BOARD

METAL STRAIGHT-EDGE