Dalhousie University  
School of Architecture  
Winter 2020

Class Time: Thursday, 2:35pm to 5:25pm  
Room: IND. ENG. & CONT. ED. 121, Sexton Campus  
Course Instructor: Ken Kam  
Course T.A.: Lauren Abbass, Yan Yuan  
Office: HA-15 (Ralph M. Medjuck Building)  
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Calendar Description  
As the world becomes more visually oriented, a critical appreciation of visual information becomes indispensable. Students use charts, diagrams and other means of externalizing, developing, and sharing ideas. In doing so, they learn to analyze the form of graphic information as well as the content. Hands-on work is emphasized, but no prior experience in drawing or design is needed. This course is a more abstract and reflective complement to ARCH 2501.

Additional Description  
This course is for undergraduate university students who are seeking a better understanding of visual representation. This course will introduce students to a general overview of the history, methods and medium of visual communication and provide practical knowledge in basic design and graphic computer skills. Visual images have been recognized the easiest way to communicate an idea and with the new technology we face in the 21st century, images can be found in every corner of our lives. The way we absorb and learn information now is different from the traditional text-base learning theory. This course will investigate how we make the connection from viewing an image to making a critical judgment from a personal reflection and, in turn, having a new attitude towards a specific ideology.

Learning Objectives  
The goal of the course is to provide students with the practical knowledge and understanding of visual communication. Students will also develop hands-on skills and be able to articulate an understanding of the relationship between visual design ideas and their effective representation. This course will also provide an overview of visual communication tools (i.e. photo editing/layout software, model-making, etc) and techniques. Through a series of practical exercises, students will learn how and when to use them effectively.
There will be an assignment every week until Feb. 27. Due date for each assignment is the following week. Final project will be presented on March 5. Students have one month to prepare the work and presentation will be on April 2, 2020.
A section is a “vertical cut” through an object - the cut plane. The viewer looks at the cut plane with a 90˚ from a particular position. Sectional drawings show the height of a space, the thickness of the materials shown on the cut plane, and internal details of the object.

Exercise 1.1: Create a “Elevation-section” drawings of ______. Include a 100 words companion text to describe what you’ve learned from the exercise.

General process (more details are presented during class):
1. Define a “cut plane” for each objects.
2. Study the area by drawing it’s section and elevation.
3. Layout/Compose your drawings on several pages.
4. Present your work in class.

Goal:
At the end of this exercise, you should be able to show how to use an elevation-section/plan drawing to depict internal details and to help further understanding of an object.

What you need:
- Digital Camera
- Multiple sheets of drawing paper (11x17)
- Wood graphite pencils (4H - 8B)
- Straight edges
- Sketchbook

References:

Readings:
Composite section, plan and elevation of two versions of a 16-bay dome, developed from the ‘Revised design’, drawn by Hawksmoor, c.1690

Andrea Palladio (1508-1580)  
La Rotonda, 1570  
From I quattro libri dell’architettura, Venice

Sections  
ST JOHN’s COLLEGE, Cambridge  
Pg. 112, 113  
Drawing for Landscape Architecture  
Edward Hutchison
Parallel projections describe multiple views of an object, space, or building on a flat drawing surface using only two dimensions. They are abstract systems and methods which enable us to illustrate a real object beyond the viewer’s optical capacity. We will explore how to construct an axonometric drawings.

**Exercise 1.2:** Create one 45° axonometric drawing and one section-oblique drawing of an area of the Hydrostone district. Include a 100 words companion text to describe what you’ve learned from the exercise.

**General process:**
1. Research and find the appropriate site plan by using Google map. You can use Google street view for reference while you are making the drawings.
2. Before you start your drawing, use the site plan as a base and find the appropriate scale for the drawings in reference to the paper’s dimensions (11x17).
3. Add details to your drawings - people, vegetation etc.
4. Present your work in class.

**Goal:**
At the end of this exercise, you should be able to create well-proportioned axonometric and oblique drawings of any subject, and examine/understand the build environment through creating the drawings.

**What you need:**
- Digital Camera
- Multiple sheets of drawing paper (11x17)
- Wood graphite pencils (4H - 8B)
- Ruler
- Sketchbook

**References:**

**Understanding a site through Three Dimensional Projections (axonometric and oblique drawings)**

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- Digital Camera
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- Ruler
- Sketchbook

**References:**
A section oblique/perspective drawing illustrates the spatial relationship between exterior and interior spaces of a building and its context. This type of drawings enable students to explore hidden details of a built environment which our eyes cannot perceive.

**Exercise 1.3:** Create a one-point section perspective and a 45° section-oblique drawing of an area within the Hydrostone district of Halifax. Include a 100 words companion text to describe what you’ve learned from this exercise.

**General process (more details are presented during class):**
1. Determine where your “cut plane” location.
2. For later reference you can research more detail using Google map and street view while you are making the drawings.
3. Construct the section - deduce in section the proportion, shape, and geometry of your selected area.
4. Place you “vanishing point” and connect the “cut plane” to your section.
5. Project and render the spatial depth.
6. Add details to your drawings - people, vegetation etc...
7. Present your work in class.

**Goal:**
At the end of this exercise, you should be able to create a one point perspective section drawings with proper line weight and understand details about the built environment.

**What you need:**
- Digital Camera
- Trace paper
- Multiple sheets of drawing paper (11x17)
- Wood graphite pencils (4H - 8B)
- Ruler
- Sketchbook

**References:**
- Wang T. 1996, Plan and Section Drawing, Wiley
students’ work (Arch 2000, 2015)
section perspective drawings
Description:
The combination of different drawing types (axonometric, elevation, perspective, etc.) can be a useful way to represent a built environment, a landscape, and a design idea. Composing a drawing of this type requires a strong sense of order and organization of the elements. Viewer must engage with it quickly and follow the hierarchy of the presented information.

Exercise 1.4: Learning the basic of Illustrator CC. Combining axonometric, oblique section, and elevation drawings into a single sheet composition. Include a 100 words companion text to describe what you’ve learned from this exercise.

Subject: Hydrostone district, Halifax.

General process (more details are presented during class):
1. Reflect on the last three weeks exercises.
2. Determine what part of __________ street to represent.
3. Visit the site and walk through the area. Draw a few quick sketch of the areas you like to represent. You can use Google map or street view later to remind and fill in the details.
4. Review your hand drawings.
5. Draw several thumbnail sketch ideas in how to combine and arrange your drawings into a single composition.
6. Make the drawing in Illustrator CC.
7. Print and present your work in class.

Goal:
The goal of this exercise is to help you, learn the basic in Illustrator and to make clear and engaging composition decisions when combining multiple drawing types together. Furthermore through active engagement - site visit and walking through the area, you will acquire a more complete understand of the space through creating the drawing.

What you need:
∙ Digital Camera, computer with Illustrator CC
∙ Trace paper
∙ Document size - 11x17
∙ Ruler
∙ Sketchbook

References:
• https://www.youtube.com/watch?v=dKXW3h5on-M&list=PLGPea8lrKskR0KZQD9fHQRKIPzkhwv-JDyz&index=2&t=0s
• https://www.youtube.com/watch?v=kZ14PqMK-FRQ&list=PLGPea8lrKskR0KZQD9fHQRKIPzkhwv-JDyz&index=3&t=0s
• https://www.youtube.com/watch?v=kZ14PqMK-FRQ&list=PLGPea8lrKskR0KZQD9fHQRKIPzkhwv-JDyz&index=3&t=0s

Orthographic drawings

Digital illustration
Model Making

Description:
Architectural models are the best way of communicating 3D ideas. Physical models can be created out of anything from recycled cardboard to materials that need laser-cutting for precise results. For the next four weeks you are introduced to four kinds of modeling techniques (volumetric, massing, detail, process, and abstract), how to construct them, and to use them to express an idea. In addition, you will learn how to use basic lighting techniques to perform a lighting study on the models and photograph them.

Exercise 2.1: Construct a topographical model of __________ and using volumetric model principle to show buildings which occupies the area. Include a 100 words companion text.

General process (more details are presented during class):
1. What is the purpose of model?
2. Working documents - site plan, contour lines, etc..
3. Determine the scale and details.
4. What kind of construction materials for the model?
5. What type of equipment or machine for cutting and constructing the model?
6. Research in construction techniques and sequences.
7. Make the model.
8. Present your work in class.

Goal:
The goal of this exercise is to help you to understand the process of constructing a model and through the act of making, it can help further understanding of the site.

What you need:
- TBA

Readings:
student’s work (visual thinking 2014)
Model Making

Constructing a digital 3D model.

**Description:**
Construct a digital building/site model using 3D software.

**Exercise 2.2:** Construct a digital site model of __________ at 1:_______ scale. Include a 100 words companion text to describe what you’ve learned from the exercise.

**General process (more details are presented during class):**
1. Study the site area.
2. Using 3D software online to construct a digital model
3. Print the 3D model.
4. Present your work in class.

**Goal:**
Through the process of making the model, you will learn about the site and aware of the amount of details need to be shown at a certain scale.

**What you need:**
- a list of tools and material will be presented during class.
Model Making

**Description:**
An interior space can be greatly altered by the transient quality of daylight. When used to illuminate the interior environment of a building, sunlight can dramatically alter our perception. This assignment allows students to understand the broad range of design strategies within an architecture space.

**Exercise 2.3 & General process (more details will be presented during class):**
You are asked to design and construct a small/simple model to represent three architectural spaces: hallway, front lobby, and small gallery (fig. 1). By altering light condition, materials, and design strategies within each model, you are asked to photograph the space in a systematic and typological way (fig. 2). Each variation is to develop into a matrix of photographs (fig. 3). Include a 100 words companion text to describe what you’ve learned from the exercise.

**Goal:**
This exercise will help you understand the composition of perceptual luminosity within each space you’ve created and to compare the impacts of daylight within each design. Furthermore, you can visualize your impact in design strategy by altering daylight within a design space.

**What you need:**
- A list of tools and materials will be presented during class.

**Readings:**

References:
Model Making student’s work (2012)

photo by: Antoine Mercusot
**Composition of word and image**

**Description:**
To layout a presentation means to order all its parts into legible and effective composition. Viewers must engage with it quickly and follow the hierarchy of presented information easily. Most architectural and planning presentations consist of text, photographs, models, and drawings. It is important to develop a story, however simple, to engage with the viewers. The presentation must be able to communicate the design ideas and all of its components to its viewers, regardless if they are laypersons or the professionals.

**Exercise 3:** For this assignment you will be presenting a site area within Halifax to the class through skills gained in the last eight weeks of the course. You will utilize drawings, photographs, graphics, and 3D model to convey an idea or describe a space.

**General process (more details are presented during class):**
1. Gather all the drawings, models, and photographs of previous exercises. Transfer them into digital format.
2. Editing carefully, adjust framing, and consider change of scale of your work.
3. Create several story boarding ideas of your work.
4. Transfer your story boards idea into two sheets of large format presentation.
5. Printout your work.
6. Pin up and present a one minute presentation of your work in class.

**Goal:**
The goal of this exercise is to introduce you to the textual aspects of design involving the characteristics of type, how we identify letters, words, and paragraphs, and how we read them.

**What you need:**
- computer
- Indesign, Illustrator software
- graphics from previous exercises
- sketchbook
- pencils

**Readings:**
No reading.
These are the most important to be shown in final crit. The next are analytical diagrams, previous studies + design development in smaller paper & not occupying important space on panel.
How the course works (Attendance/Class Participation):

This is a course where you learn the content in class, which means student participation is expected and encouraged. Class time will consist of a mix between, short lectures, large and small group discussions, presentations, hands on activities, and/or field work. Students must come to class prepared to discuss the readings and/or presentation for that week. If you are going to be absent, it is still your responsibility to make sure your assignment is on time. I will not provide lecture notes to students. This is a studio class, and if you are not here, your chances of succeeding in this class are not good.

Grades

A- or A or A+ - Excellent technically and conceptually, communicates well to others, attention to detail and craftmanship, good skill development, extra time spent.
B or B+ or B- Good work. Some technical problems and/or problems communicating concept. Skill development, good ideas.
C- or C or C+ - Complete all assignments, average work, average concept development, basic skills. Technical problems.
D - Incomplete work
F - Unacceptable work, deficient in all respects. Very late or no work.

Students' grades will be based on class attendance, class participation, the quality and punctuality of assignments, and your overall improvement.

Assignments are due on the date assigned. For every day that your assignment is late, your grade on the assignment will drop by a third of a letter grade (unless you have a written note from a doctor).

Evaluation Criteria

Project 1 (2 - 3 assignments) - 30%
Project 2 (2 - 3 assignments) - 30%
Project 3 (Group project) - 40%

Ken Kam will be grading the assignments and projects.

Assignment Objectives

The assignments in this course are intended to enable you to improve your visual thinking skills and in return to enhance your graphic representation skill through the use of different materials. Generally each project includes at least three kinds of objectives: (1) subject matter communication (meaning), (2) aesthetics (composition), and (3) technical mastery (skill).

Some Guidelines for Project Critiques and Grades:

• Creativity
• Originality
• Simplicity
• Understanding of design elements: balance, focal point, etc.
• Content
• What are we looking at?
• What are you telling us?
• Is it worth looking at?
• Is it important?
• Technique
• Evidence of technical control
• Concept
• Does it fulfill the assignment? How well?
• Presentation
• Clean print
• Does the presentation work with the concept?