

# GRAPHIC COMMUNICATION 1

## Bachelor in Architectural Studies BAS SEP-2023 GC1- AS.1.S.A

Area Architecture and Design

Number of sessions: 40

Academic year: 23-24

Degree course: FIRST

Number of credits: 6.0

Semester: 1º

Category: BASIC

Language: English

Professor: **MAXON HIGBEE**

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Maxon Higbee is an artist and professor in the Bachelor in Architecture at IE University. He is co- director of The Windor, an artist run space in Madrid.

In 2010 he was awarded a World Less Traveled Grant for a proposed project in Madrid, where he stayed, and continues to live and work. He has been in many solo and group exhibitions internationally and has given lectures at several institutions, including the American University Beirut, Lebanon; The Thyssen Bornemisza Museum, Madrid; and the IEU Department of Architecture and Design in Izmir, Turkey. He was a visiting artist in the Estudio Joven program at The Thyssen Bornemisza Museum, in Madrid, and was a selected artist in issue #101 of New American Paintings.

He received a Bachelor of Arts degree in English Literature and a BFA in Painting and Drawing, at California State University Chico, in 2007. In 2008 he was offered a full-time merit fellowship in the Painting and Drawing program at the Art Institute of Chicago. Upon completing his Masters of Fine Arts degree he received a John Quincy Adams Fellowship Grant for artistic merit. He is currently pursuing his doctorate in Visual Studies, in the Department of Art at the Complutense University in Madrid.

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## SUBJECT DESCRIPTION

Architectural Expression is an initiating subject where first year students acquire a capacity to observe, envision and communicate architecture.

In this studio-based workshop students will utilize, explore, and gain competency in the fundamental graphic skills that are necessary for the study and practice of architecture and the study of representation as a basic language for an architect. This course introduces a range of communication methodologies and their application to manual means of expression, including sketches, models and technical drawings. It will also lay out a conceptual framework for visual thinking and communication skills that will be instrumental for the further studies of digital representation techniques, beyond the scope of this course.

This course is intended to complement and strengthen design work, studio agenda and communication of ideas. It marks the beginning of development that will continue throughout students' academic and professional career.

## **LEARNING OBJECTIVES**

Per Ministerial Decree EDU/2075/2010, 29 of July; and the official accreditation request for the Bachelor in Architectural Studies, July 2015; see BOCYL, 14 March 2018: p. 10477-10481

### **2.1-BASIC AND GENERAL OBJECTIVES**

- CB1: Students have demonstrated knowledge and an understanding of a given area of study, building upon the foundation of secondary education, supported by advanced texts, and including aspects that engage the latest advances in their area of study.
- CB2: Students know how to apply their knowledge professionally to their work or vocation and possess the competencies that are often demonstrated through elaboration and defense of arguments and the resolution of problems within their area of study.
- CB3: Students can gather and interpret relevant facts (usually within their area of study) in order to make judgments that include reflection on relevant social, scientific, and ethical topics. CB4: Students can transmit information, ideas, problems, and solutions to both specialized and non-specialized audiences.
- CB5: Students have developed the necessary learning skills to continue their studies with a high degree of autonomy.
- CG2: Knowledge of the role of the fine arts as a factor that can influence the quality of architectural creation.

### **2.2-SPECIFIC COMPETENCIES**

Module: Preparatory Subject: Graphic Communication

- CE1: Ability to apply graphic knowledge to the representation of spaces and objects.
- CE2: Ability to conceive of and represent the visual attributes of objects and to demonstrate command of proportion and drawing techniques, both manual and digital.
- CE3: Adequate knowledge of systems of spatial representation, as applied to architecture and urbanism.
- CE4: Adequate knowledge of formal theory and analysis, and the laws of visual perception, as applied to architecture and urbanism. CE5: Adequate knowledge of metric and projective geometry, as applied to architecture and urbanism.
- CE5: Adequate knowledge of graphic surveying techniques in all phases, from sketching to scientific restitution, as applied to architecture and urbanism.
- CE10: Adequate knowledge of the fundamentals of topography, hypsometry, cartography and

site grading, as applied to architecture and urbanism.

### **2.3-TRANSVERSE COMPETENCIES OF THE UNIVERSITY**

- CT1: Ability to identify the main characteristics of cultural identities that characterize the contemporary world through the knowledge of central ideological currents.
- CT3: Manage unforeseen situations with the capacity to respond to changes within organizations. CT4: Use disciplinary knowledge to analyze and evaluate current situations.
- CT5: Integrate oneself into interdisciplinary and multicultural teams to achieve common goals in a context of diversity.
- CT6: Work actively in an international context.

### **2.4-SPECIFIC OBJECTIVES AND SKILLS**

This subject aims to help students develop conceptual thinking and professional skills necessary to observe, analyze, visualize and represent architectural space. We will therefore place special emphasis on the specific competencies CE1, CE2, CE3, CE4, CE5, CE6, and CE10, as described above. In addition, students will be taught and eventually evaluated on their proficiency in the following:

#### Conceptual objectives:

- Observe reality and space (objects, structures and architecture) with precision.
- Represent what is observed through a sketch, drawing or a model.
- Understand architectural drawings by being able to read spatial characteristics from orthogonal plans and sections.
- Being able to represent architectural space coherently and comprehensively by creating architectural drawings and physical models.
- Initialize and support creative process through drawing.

#### Professional skills:

- Understanding how human perception works and how to use that knowledge to communicate architectural ideas in a comprehensive and expressive way.
- Understanding the conventions of architectural drawing and ability to use them effectively in design process and project representation.
- Ability to present work in public and engage in constructive critique with others.

## **TEACHING METHODOLOGY**

IE University teaching method is defined by its collaborative, active, and applied nature. Students actively participate in the whole process to build their knowledge and sharpen their skills. Professor's main role is to lead and guide students to achieve the learning objectives of the course. This is done by engaging in a diverse range of teaching techniques and different types of learning activities such as the following:

### 3.1. Teaching Method

The teaching method is focused on students' working hands-on as a primary way to acquiring the relevant skills and concepts. Class Sessions will combine short lectures given by the professor with sufficient time given to students to practice these concepts in the form of either short exercises in class or assignments due.

Class lectures will offer both conceptual framework and practical advice. The objective of the lectures is to provide initial help to students, so they start developing the individual skills needed to fulfill the requirement of the course, and also to be able to be productive in design-related assignments outside the scope of this course.

Since hands-on experience is paramount in teaching design, the work that students are required to do will be a primary learning method. This work will be framed as a sequence of short-term (class exercise) and long-term (multiple sessions) assignments. Short term assignments are to be developed in the classroom, to apply the theory learned to daily practice.

The professor will give advice and make corrections, both individually and with the whole group. This process is intended to create a frame of critical dialogue involving the participation of all the students in order to learn from each other.

### 3.2. Student Learning Method / Distribution of ECTS Load

The course is focused around practical knowledge that students will achieve by working in a studio environment, where students are expected to work applying the processes and methodologies explained by the professor in the theoretical sessions.

The students will progressively improve their knowledge in a mainly practical way, and it is a must to follow the rhythm of the assignments given by the professor, and show the work in progress in order to be discussed and improved. All the work that a student submits has to be original and made by the student: not copied, traced, or downloaded from the internet, unless students are specifically instructed to trace other's work as a part of the actual exercise. Doing otherwise will lead the student directly to the final extraordinary exam.

Students are expected to work continuously in a sketchbook, practicing concepts of freehand drawing, to improve progressively in both techniques and skills in controlling scale, proportion, perspective and tone.

During the tasks where students are asked to perform analysis, they will be allowed to use digital devices (tablets, laptops, desktop computers) in class, purely for the purpose of class-related research. In any case, the use of digital devices and Internet for activities not related to this class is not allowed and will hinder your grade on participation.

Students are also expected to participate actively, working individually during the workshop sessions, showing and explaining their work in public and taking an active role during critiques.

<b>Learning Activity</b>	<b>Weighting</b>	<b>Estimated time a student should dedicate to prepare for and participate in</b>
Lectures	12.0 %	18.0 hours
Discussions	6.67 %	10.0 hours
Exercises in class, Asynchronous sessions, Field Work	20.0 %	30.0 hours
Group work	1.33 %	2.0 hours
Individual studying	60.0 %	90.0 hours
<b>TOTAL</b>	<b>100.0 %</b>	<b>150.0 hours</b>

## **PROGRAM**

### **SESSIONS 1 - 4 (LIVE IN-PERSON)**

Presentation: Basic Observational Drawing: Points to planes (drawing is about relationships)

Topics introduced:

Point-Line-Plane

Contour line drawing

Line weight in sketching (not line-hierarchy)

Positive vs. Negative space

Negative space (blocking in) drawing

Exercises:

Hyper-objective drawing

Blind contour drawing

Regular contour drawing

Straight line charcoal drawing

Negative space drawing

## **SESSIONS 5 - 8 (LIVE IN-PERSON)**

Presentation: Basic Observational Drawing: Light and form

(drawing is about the confluence of light and shadow)

Topics introduced:

Light and shade

Cast shadows

Value scale

Value with charcoal (additive and subtractive)

Value with line (hatching)

Value with accumulation (pointalism) Texture

Exercises:

Drawing with value, still life, with charcoal (additive)

Drawing with value, architecture, with charcoal on primed paper (additive and subtractive)

Drawing with value, still life, with pencil or pen (hatching)

## **SESSIONS 9 - 11 (LIVE IN-PERSON)**

Presentation: Orthographic (multiview) projection

Topics introduced:

Drafting tools Analytic drawing

Plan

Elevation

Section

Layering information

Basic layout

Construction lines

Exercises:

Tectonic model

Orthographic drawing

## **SESSIONS 12 - 14 (LIVE IN-PERSON)**

SESSIONS 12 - 14

Presentation: Linear Perspective

Topics introduced:

Perspective through scale

Perspective through overlapping

Perspective through location

Aerial Perspective

History and elements of linear perspective

Picture plane , ground plane, horizon line , station point , vanishing point

Convergence

One point perspective

Sighting

Exercises:

Sighting exercise

Exterior one point perspective drawing

## **SESSIONS 15 - 17 (LIVE IN-PERSON)**

SESSIONS 15 - 17

Presentation: Measured drawing

Topics introduced:

Scales - differentiation between scale and size

Mapping measurements

Sighting measurements

Data collection and documentation

Order of operations

Line hierarchy

Symbolic lines

Construction lines

Orthographic terminology

Scale, north arrows and section markers

Door swing and thresholds

Exercises:

Measuring and data gathering for midterm assignment

Producing a complete architectural drawing set

## **SESSIONS 18 - 19 (LIVE IN-PERSON)**

SESSIONS 18 - 19

Presentation: Lettering and Context

Topics introduced:

Drafted letters

Hand lettering

Spacing

Kerning

Typography

Rendering context

Site plan

Topography and Contour lines

Exercises:

Lettering assignment  
Detailing and rendering context

## **SESSIONS 20 - 22 (LIVE IN-PERSON)**

Mid Term Review

## **SESSIONS 23 - 25 (LIVE IN-PERSON)**

Presentation: Paraline Drawing: Axonometric

Topics Introduced:

Axonometric  
Isometric  
Exploded views  
Exploded lines vs. construction lines

Exercises:

Isometric cube and constructing forms in Isometric drawing  
Exploded Isometric drawing of object

## **SESSIONS 26 - 28 (LIVE IN-PERSON)**

Presentation: Paraline Drawing - Oblique drawing

Topics Introduced:

Difference between axonometric and oblique drawing  
Plan oblique with possible angles  
Strategies of abstraction

Exercises:

Abstract oblique drawing

## **SESSIONS 29 - 31 (LIVE IN-PERSON)**

Presentation: Analog Colour

Topics Introduced:

Applied colour principles  
Additive colour and subtractive colour  
Colour wheel  
Hue, Value, Intensity  
Colour harmonies  
Paint tips

Exercises:

Colour wheel  
Painted composition

## **SESSIONS 32 - 34 (LIVE IN-PERSON)**

Presentation: Plan Oblique

Topics Introduced: Introduction to final assignment

Plan oblique  
Elevation oblique  
Shadows in oblique  
Cutaway views  
Partition views  
Expanded views

Exercises:

Measured plan oblique drawing

## **SESSIONS 35 - 37 (LIVE IN-PERSON)**

In class development of final project

## **SESSIONS 38 - 40 (LIVE IN-PERSON)**

Final Review

## **EVALUATION CRITERIA**

Evaluation continuous, which implies that all the work produced by the students along the semester will contribute to the final grade. Technical competence and conceptual value of the submitted work will be the evaluated with equal importance, as will be the case with maturity of student's critical view inside the context of the collective work of the class. Additionally, development and growth of these capacities throughout the semester will form an important element during evaluation.

### **First Evaluation Session**

In order to pass the course during the first evaluation session, the overall evaluation grade of the student should be at least 5.0 points on a scale between 0.0 and 10.0.

As listed in the table above, the primary evaluation material for the first evaluation session will be the assignments.

The graphic assignments for the class will be given two due dates. On the first due date, the work is expected to be complete to provide feedback. The second due date will be the final submission of the assignment with updates/corrections made as per feedback received. If the work is deemed incomplete on the first due date, it will receive a 0.0 for that particular assignment and will not be allowed to be submitted for the final due date.

### **Attendance:**

According to the current attendance policy of IE University, class attendance is mandatory: students must attend at least 70% of all class sessions. Students who do not meet this minimum percentage will automatically fail both the first and second evaluation session, and pass directly to the third enrollment (re-taking the course).

When re-taking the course, attendance must be of at least 50%, but the student must accomplish 100% of the exercises assigned. If this level is not reached, the student will have to do the 4th and last exam session to pass the subject.

Punctuality is also mandatory. According to the general Code of Conduct In Class (see below), students arriving late to the class will be marked as absent.

<b>criteria</b>	<b>percentage</b>	<b>Learning Objectives</b>	<b>Comments</b>
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Assignments	90 %		Correct graphical and conceptual execution of the submitted assignments.
Class Participation	10 %		Active participation during class and programmed activities

## RE-SIT / RE-TAKE POLICY

### Second and Fourth Evaluation Sessions

Those students whose studio work has not been positively evaluated will be required to pass an extraordinary evaluation session, except for the students that do not meet the minimum percentage attendance - according to IE University attendance policy, such students do not qualify for the subsequent evaluation session.

Students falling under these circumstances will be responsible for contacting the instructor at least three weeks prior to the expected examination submission date in order to be notified about the specific requirements for their satisfactory fulfillment of the course.

No claims will be accepted if the student fails to contact the instructor within the time frame set above, as it will then be understood that he/she declines the opportunity to pass the course within the current evaluation session.

The content, format and evaluation criteria of these additional examinations will be adjusted according to the specific studio performance and coursework situation of each individual. The second enrollment will consist of resubmitting all the past work that received less than a passing grade as well as a graphic exam. The past resubmissions and the exam is equally weighted towards the second enrollment grade. The final grade for the course after the first and second enrollments will be a combination of the two.

After the second and fourth evaluation sessions, and according to the current IE University policy, the student will be graded according to both his/her performance in the exam and his/her performance during the course.

The second and fourth evaluation sessions will only be considered satisfactorily complete with a grade of 5.0 or more. According to the general regulations of IE University, students cannot earn a grade higher than 8.0 in the second and fourth evaluation sessions.

### Third Evaluation Session

Those students that do not receive a positive evaluation in the second evaluation session and those students who fail to comply with minimum attendance requirement, will be required to retake the course during the following academic year, where they will produce new design assignments which will constitute their primary evaluation material for the third evaluation session.

The criteria for evaluation for the third evaluation session is the same as the ones for the first evaluation session.

Students falling under this category will be subject to a minimum class attendance policy of 70%, which is set by the general regulations of IE University, under the same conditions as in the first enrollment.

## BIBLIOGRAPHY

### Compulsory

- Francis D. K. Ching. (2015). *Architectural Graphics*. 6th edition. John Wiley & Sons. ISBN 9781119035664 (Printed)
- Rendow Yee. (2012). *Architectural Drawing: A Visual Compendium of Types and*

## **BEHAVIOR RULES**

Please, check the University's Code of Conduct [here](#). The Program Director may provide further indications.

### **CODE OF CONDUCT IN CLASS**

Be on time: : Students arriving more than 5 minutes late will be marked as "Absent".

Only students that notify in advance in writing that they will be late for a specific session may be granted an exception (at the discretion of the professor).

Do not leave the room during the lecture: Students are not allowed to leave the room during lectures. If a student leaves the room during lectures, he/she will not be allowed to re-enter and, therefore, will be marked as "Absent".

Only students that notify that they have a special reason to leave the session early will be granted an exception (at the discretion of the professor).

Do not engage in side conversation. As a sign of respect toward the person presenting the lecture (the teacher as well as fellow students), side conversations are not allowed. If you have a question, raise your hand and ask it. If you do not want to ask it during the lecture, feel free to approach your teacher after class.

If a student is disrupting the flow of the lecture, he/she will be asked to leave the classroom and, consequently, will be marked as "Absent".

Use your laptop for course-related purposes only. The use of laptops during lectures must be authorized by the professor. The use of Social Media or accessing any type of content not related to the lecture is penalized. The student will be asked to leave the room and, consequently, will be marked as "Absent".

No cellular phones: IE University implements a "Phone-free Classroom" policy and, therefore, the use of phones, tablets, etc. is forbidden inside the classroom. Failing to abide by this rule entails expulsion from the room and will be counted as one absence.

Escalation policy: 1/3/5. Items 4, 5, and 6 above entail expulsion from the classroom and the consequent marking of the student as "Absent." IE University implements an "escalation policy": The first time a student is asked to leave the room for disciplinary reasons (as per items 4, 5, and 6 above), the student will incur one absence, the second time it will count as three absences, and from the third time onward, any expulsion from the classroom due to disciplinary issues will entail 5 absences.

## **ATTENDANCE POLICY**

Please, check the University's Attendance Policy [here](#). The Program Director may provide further indications.

## **ETHICAL POLICY**

Please, check the University's Ethics Code [here](#). The Program Director may provide further indications.