ARCHITECTURAL EXPRESSION

ÁNGELA RUIZ / DANELLLE BRISCOE

<table>
<thead>
<tr>
<th>COURSE YEAR</th>
<th>SEMESTER</th>
<th>CATEGORY</th>
<th>ECTS</th>
<th>LANGUAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1º</td>
<td>1º</td>
<td>Core</td>
<td>6</td>
<td>English</td>
</tr>
</tbody>
</table>

1. SUBJECT DESCRIPTION

Architectural expression is the graphic subject that introduces the student to drawing as the basic language for the architect, and as the required tool to develop capabilities of understanding, conception and expression of architecture.

2. OBJECTIVES AND SKILLS

2.1. Objectives and General Competences

Conceptual objectives / Adequate and proper application of architectural knowledge

- Suitable knowledge applied to architecture and urbanism.
- Introduction to spatial representation systems.
- Analysis and theory of the morphology and the fundamentals of visual perception
- Basic elevation sketch techniques, especially freehand drawings.
- Application of graphic means to the representation of objects and space
- Conceive and represent visual attributes of everyday objects and control their proportions

Learning results:

Concerning skill number 1: “Introduction to: Spatial representation systems”. The aim is that the student reaches an important ease with them. To prove knowledge of spatial representation systems with creativity.

Concerning skill number 2: “The and theory of the morphology and the fundamentals of visual perception”. The aim is that the student reaches the capability of applying correctly the theoretical concepts of analysis and the theory and visual perception laws in architectural representation”

Concerning skill number 3: “Basic elevation sketch techniques, especially freehand drawings”. The aim is that the student reaches to put into practice in a correct and precise way the basic sketching techniques and especially freehand drawing”

Concerning skill number 4: “To Application of graphic means to the representation of objects and space.”. The aim is that the student gain special abilities to justify the capability of application from graphic process to the space and objects representation with expressively.

Concerning skill number 5: “Get to know the techniques to transmit ideas: graphic, written or theoretical ideas”. The aim is that the student gets a special ability to dominate graphic, written and theoretical ideas to transmit them as a required learning of basic language of architecture.

2.2. Objectives and specific competences

Conceptual objectives:

The subject aims to help the student to:

- Develop analytical capabilities for Architectural Expression.
- Observe reality and space (objects, structures and architectures).
- Represent reality making a sketch or a simple drawing.
- Learn how to communicate spatial concepts and ideas with a graphic language.
- Understand plans and architectural drawings, their spatial characteristics and communicate these using the proper tools and in a comprehensive and comprehensible way.
- Initialize a thinking process through drawing.
Technical objectives (methods):

- Use pencil and ink as a basic sketching tool.
- Use digital tools to represent architecture (CAD tools, 2D) and manipulate images.
- Understand and use universal codes of communication in drawing.
- Organize a graphic work that is clear and coherent.
- Control of proportion and perspective.
- Be creative and expressive using drawing and painting (stains, color and lines).
- Be able to research about an specific theme.
- Be motivated, enthusiastic, curious and hard-working.
- Learn how to present a work in public and maintain a self-critical attitude, and to maintain constructive critique with the others.

Professional skills:

The subject will provide the student with several skills that are essential for an architect, such as:

- Capability of elaborating technical drawings to communicate architecture to other professionals in order to be built.
- Capability of communicating ideas with a sketch drawing and persuading the client.
- Capability of developing a project, from the first drawing to detail, using standard professional codes of communication in architecture.

Learning results:

Once the student reaches the objectives defined, the results are:

- Be able to understand and analyze reality to learn continuously as an architect.
- Employ necessary graphic tools to be able to express and communicate! ideas, and to think and create architecture.
- Be able to start a project and develop it until its construction.
- Develop essential skills of an architect as the capability of organize, work, auto critique, precision and clarity in communication through drawings.

3: CONTENTS

The subject is organized in 3 blocks:

B1. SKETCH DRAWING: Freehand Sketching

Learning how to analyze, represent and communicate reality by:

1. Representative drawing: Perspective, Proportion, Framing
   It aims to: Observe reality, analyze its morphology and physical laws. Represent it by analytic, constructive and detail drawings.

2. Schematic drawing: Analysis, Synthesis, Communication
   Synthesize reality, use drawing as an architect’s language and as a means of expression. Sketch drawings.

B2. ARCHITECT’S DRAWING: Freehand + CAD Computer Aid Drawings

Learning how to represent architecture by:

- 3D Projection. Perspective. Axonometric
- Models: Real and Digital models

Practice Sketch Drawing through great architect’s work and work on it to deepen into orthographic projection, (2D, 3D) using CAD tools and models.
This process will be developed studying examples as:

1. Drawings Through History: Piranesi, Leonardo, Bernini… (Drawing after be built)
2. Drawings In Modern Architecture: De Stijl, Modern Movement… (Built architectures)
3. Drawings In Visionary Architecture: Futurism, Russian Constructivism, Archigram… (Non-built architectures)
4. Drawings In Contemporary Architecture: Graphic tools nowadays, infographies and spatial models: Steven Hall, FOA, Zaha Hadid... (Built and non-built architectures)

B3. DRAWING IDEAS: Freehand + CAD + Free Software (AdobeCS3, Rhino…)

Graphic invention and communication. Presentation

Use drawing as an architectural thinking tool, through concepts, ideas and spatial, morphological and constructive solutions.

Integration of the abilities learnt in B1+B2 through competition of ideas: Invention, Gadgets, designs and architectures adapted to specific conditions (Bioclimatic, energetic, social function, form, atmospheres, scale changes...)

Architectural invention through Art: oblique lines, body shapes, spirals, folds, tracks, mathematic objects and macro photography.

The three blocks will be intercalated during the course.

B4. PORTFOLIO: CV+Presentation of the work done during the whole course

4. METHODOLOGY AND ECTS WEIGHTING

The teaching method consists on a number of short lectures given by the professor, regarding the most relevant techniques and aspects of each block. The course will also provide an initial training in CAD tools and freehand drawing steps in order to allow the student to start developing the individual skills needed to fulfill the requirements of the course.

During the studio sessions there will be short-term assignments to develop during the sessions and practice the theory explained.

There will be also long-term assignments to be developed by the student at home that will be explained and submitted to public critic, so the student has to give informal presentations of their work in process in order be able to keep on working. The aim of these assignments is to further deepen the graphic work explained during classes.

The professor will give advice and corrections, both individual and directed to the whole group. It is intended to create a frame of critic dialogue involving participation of all the students in order to learn one from each other and improve individually but working as a group.

There will be also Final Critical Sessions of the long-term assignments where the students will explain the developed work in public in order to be evaluated.

Both free-hand drawing and architect’s drawing (by hand or CAD systems), will be explained during the sessions, intercalating assignments with the purpose of developing those skills through the course.

In between special sessions will be held. Those special sessions are dedicated to Ideas Competition assignment with the aim of integrate the skills and techniques learnt and work on composition and presentation.

Finally, during the last sessions, the professor will explain how to make a personal portfolio based on the revision and improvement of the assignments, and with the aim of presenting the work developed during the course and be useful for the professional future of the student.

Therefore, the teaching method is framed into a flexible pedagogic organization in which theory and practice intercalate through the sessions and integrate skill in special sessions making use of all the architect’s tools learnt.
The course is developed according to the following hours and sessions:

<table>
<thead>
<tr>
<th>Activities</th>
<th>Sessions</th>
<th>Student Contact Hours</th>
<th>Ratio</th>
<th>Student Hours of Independent Study</th>
<th>Total student hours</th>
<th>ECTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lectures</td>
<td>20</td>
<td>30</td>
<td>1.5</td>
<td>45</td>
<td>75</td>
<td>3.0</td>
</tr>
<tr>
<td>Discussion Sessions</td>
<td>13</td>
<td>19.5</td>
<td>1.8</td>
<td>35.1</td>
<td>54.6</td>
<td>2.2</td>
</tr>
<tr>
<td>Presentations</td>
<td>2</td>
<td>3</td>
<td>1.5</td>
<td>4.5</td>
<td>7.5</td>
<td>0.3</td>
</tr>
<tr>
<td>Other Activities</td>
<td>3</td>
<td>4.5</td>
<td>0</td>
<td>0</td>
<td>4.5</td>
<td>0.2</td>
</tr>
<tr>
<td>Group Tutorials</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>0.1</td>
</tr>
<tr>
<td>Individual Tutorials</td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td></td>
<td>0.1</td>
</tr>
<tr>
<td>Exams</td>
<td>2.4</td>
<td>0</td>
<td>0</td>
<td>2.4</td>
<td>0.1</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>40</strong></td>
<td><strong>65.4</strong></td>
<td></td>
<td><strong>84.6</strong></td>
<td><strong>150.0</strong></td>
<td><strong>6.0</strong></td>
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</tbody>
</table>

This subject does not require the use of a laptop in class; nevertheless, if you want to bring your laptop, please contact your professor.

### 5: EVALUATION SYSTEM

The evaluation system is continuous and basically practical. Every assignment and every work produced along the course will be evaluated and taken into account for the final grade.

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Criteria</th>
<th>Instrument</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evolution</td>
<td>Improvement of graphic level of the assignments.</td>
<td>Comparison of drawings during the course</td>
<td>10%</td>
</tr>
<tr>
<td>Development of assignments</td>
<td>To reach a good graphic level in the different assignments. These circumstances will exclude from the required level:</td>
<td>Corrections during the course</td>
<td>70%</td>
</tr>
<tr>
<td></td>
<td>1. Lack of control of proportion</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Lack of control in drawing construction</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Lack of understanding of what is being drawn (spatial vision)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. Not expressing the drawn object properly.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extra work given by the student</td>
<td>Experimentation capability and eagerness to learn more, looking for a personal graphic language.</td>
<td>Corrections during the course</td>
<td>20%</td>
</tr>
</tbody>
</table>