DESIGN STUDIO 7: AGREGATION

IE University
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Academic year: 22-23
Degree course: FOURTH
Semester: 1º
Category: COMPULSORY
Number of credits: 9.0
Language: English

PREREQUISITES
The student should have completed and passed the previous course of Design Studio, or be registered for the third enrolment. Students may not enrol in more than one Design Studio course per semester.

SUBJECT DESCRIPTION
Fourth year Design Studio 7 and 8 are framed by the theme ‘engagement’. The year particularly focuses on the relationship between buildings and urban surroundings, as well as on the interaction between communities and their built environment. Design Studio 7 looks at ‘engagement’ from the point of view of how the city ‘aggregates’ diverse layers and scales to conform an active and constantly changing organism. The course will particularly focus on the design of collective housing and its relationship with the city. To this end, we will be working specifically around the boundaries of different architectural scales, aiming to knit the domestic realm with its belonging neighbourhood.

The course seeks to engage students in questions related to the way we inhabit the city collectively, and how we can delineate the balance between density and open space that is needed for a neighbourhood to become a lively and functional. We will focus on the notion of urban polyvalence as a conceptual and practical tool to provide solutions to a currently ‘sick’ urban area.

Design Studio 7 is coordinated with Construction Systems and Applications 4 in order to produce a series of documents with technical specificity for the design proposal to be developed in both courses.

OBJECTIVES AND SKILLS
Per the Decree EDU/2075/2010, 29 of July

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.
- CB5: Students can transmit information, ideas, problems, and solutions to both specialized and non-specialized audiences.
- CB6: 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.
- CG4: An understanding of the fundamental issues in structural design, construction, and engineering as related to building projects, as well as the techniques used to address these issues.
- CG5: Knowledge of the issues related to building physics, technologies, and programmatic uses, in order to create buildings that provide internal comfort and protection from the elements.
- CG6: Knowledge of the industries, organizations, regulations, and procedures needed in order to transform projects into buildings, and to integrate drawings into the planning process.
- CG7: An understanding of the relationship between people and buildings, and between buildings and their contexts, as well as the need to relate buildings and adjacent spaces to needs and to the human scale.

Specific Competencies

PREPARATORY MODULE (CE1-11)
(W: Workshop Format)
- CE12: Ability to devise, calculate, design and implement foundation solutions, and to integrate them into buildings and urban assemblies (W).
- CE17: Capacity to develop, calculate, design, and execute building structures, and to integrate them into buildings and urban complexes (W).
- CE18: Capacity to develop, calculate, design, and execute interior partitions, carpentry, stairs and other finished work, and to integrate them into buildings and urban complexes (W).
- CE19: Capacity to develop, calculate, design, and execute enclosure systems, roofs/coverings, and other structural work, and to integrate them into buildings and urban complexes (W).

DESIGN MODULE (CE 34-62)
(W: Workshop Format)
- CE34: Ability to eliminate architectural barriers (W).
- CE35: Ability to resolve passive environmental control, including thermal and acoustic insulation, climate control, energy efficiency, and natural lighting (W).
- CE36: Ability to categorize built and urban heritage and plan conservation efforts.
- CE37: Ability to conceive, execute and develop projects at the level of sketches, schematic design, design development, and construction documentation (W).
- CE39: Ability to conceive, execute and develop a plan of construction management (W)
- CE40: Ability to develop functional programming for buildings and urban spaces.
- CE41: Ability to intervene in, preserve, restore, and rehabilitate built heritage sites (W).
- CE43: Ability to develop projects for safety, evacuation, and building protection (W).
- CE44: Ability to develop projects for public works (W).
- CE48: Adequate knowledge of the general theories of form, composition, and architectural typologies.
- CE50: Adequate knowledge of the methods of study of processes of symbolization, practical functions, and ergonomics.
- CE51: Adequate knowledge of social needs, quality of life, habitability, and the basic programmatic requirements for housing.
- CE52: Adequate knowledge of ecology, sustainability, and the principles of conservation of energy and environmental resources.
- CE55: Adequate knowledge of the relationship between cultural patterns and the social responsibilities of the architect.
- CE60: Knowledge of feasibility studies and the supervision and coordination of integrated projects.

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.
- CT2: Ability to exercise professional behavior in accordance with constitutional principles and ethical values of the respective profession.
- 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 at in an international context.

METHODOLOGY

This course tackles an urban scale, and it addresses currently important topics on city living to be addressed as a group. It is therefore expected that students work in the studio space collectively. Desk crits will be accompanied by pin-up sessions and short lectures on relevant topics. The course also contains some site-specific exercises and field work in order to fully understand the urban context in which we will be working throughout the semester. It is expected that students engage actively in discussions with their peers, and make proper use of the reading and references provided in class.

Design Studio 7 will have the following milestones:

- **25% Review** – Pin-up presentation of collective work addressing the first stages of the design process.
- **Midterm Review** – Presentation with internal and external jury where students will have the chance to display their progress and address fundamental issues to move forward with the development of their projects. The work presented for the Midterm presentation is evaluated, and feedback is provided.
- **75% Review** – Pin-up presentation where students are expected to show their work in an advanced stage, with all mandatory documentation as a work in process in order to assess the overall requirements for a successful final deadline.
- **Final Review** – Presentation with internal and external jury where students showcase the completed work, with the aim of engaging in a productive discussion on the final outcome of the course.
In addition, the course will be guided by a series of group and individual assignments. In these assignments, descriptions of the required deliverables, guidelines and key dates are provided. In order to further reinforce the content of the course, some lectures on key aspect related to research, representation, and references will take place.

Work in progress will be reviewed through desk-crits, i.e one-to-one conversations between student and professors to deepen into aspects to consider and/or improve in the work. Pin-up reviews and group crits will also take place in order to enhance critical discussions among peers and between the sections of the course.

<table>
<thead>
<tr>
<th>Teaching methodology</th>
<th>Weighting</th>
<th>Estimated time a student should dedicate to prepare for and participate in</th>
</tr>
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<tbody>
<tr>
<td>Lectures</td>
<td>2.67 %</td>
<td>6 hours</td>
</tr>
<tr>
<td>Discussions</td>
<td>9.78 %</td>
<td>22 hours</td>
</tr>
<tr>
<td>Exercises</td>
<td>49.78 %</td>
<td>112 hours</td>
</tr>
<tr>
<td>Group work</td>
<td>8.0 %</td>
<td>18 hours</td>
</tr>
<tr>
<td>Other individual studying</td>
<td>29.78 %</td>
<td>67 hours</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100.0 %</td>
<td>225 hours</td>
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**PROGRAM**

**SESSION 1 (LIVE IN-PERSON)**

Introduction

Presentation Assignment 1 – 1st Aggregation: Neighbourhood diagnosis and Urban Actions

This assignment will produce a hands-on approach to the site. The social, cultural and morphological aspects of the site are to be researched and graphically mapped. The first part of the assignment will produce a collective model and group analysis of the site, with layered maps addressing the most relevant issues to be tackled in the area. For the second part of the course students will outline a series of ‘urban actions’ to solve incipient aspects in the urban tissue in need of urgent attendance.

**SESSIONS 2 - 3 (LIVE IN-PERSON)**

Assignment 1 Part 1 – 1st Aggregation: Neighbourhood diagnosis

Site Visit

**SESSIONS 4 - 6 (LIVE IN-PERSON)**

Assignment 1 Part 1 – 1st Aggregation: Neighbourhood diagnosis

Site model making and mapping review

**SESSIONS 7 - 8 (LIVE IN-PERSON)**

Assignment 1 Part 1 – 1st Aggregation: Site model and mapping deadline

*Lecture on Urban Polyvalence: urban recipes for the unexpected*

**SESSIONS 9 - 11 (LIVE IN-PERSON)**
Assignment 1 Part 2 – 1st Aggregation: Urban Actions review

SESSIONS 12 - 13 (LIVE IN-PERSON)
Assignment 1 Part 2 – 1st Aggregation: Urban Actions review

SESSIONS 14 - 16 (LIVE IN-PERSON)
25% Review – Assignment 1 Part 2 – Urban Actions deadline
Presentation Assignment 2 – 2nd Aggregation: site oversewing
For the second assignment, students will be working within a specific area within the neighbourhood, and will develop a design strategy for a collective living building considering a series of parameters such as maximum and minimum density, openness, and interaction between urban layers. The aim of the assignment is that of defining the large, medium and small scale of a building for collective living in close contact with the neighbourhood.

SESSIONS 17 - 18 (LIVE IN-PERSON)
Presentation Assignment 2 – 2nd Aggregation: site oversewing
Planning for collective living. Definition of large, medium and small scales - review
*Lecture on Collective Housing - layers, systems and spatial & social relationships*

SESSIONS 19 - 21 (LIVE IN-PERSON)
Assignment 2 – 2nd Aggregation: site oversewing
Planning for collective living. Definition of large, medium and small scales - review

SESSIONS 22 - 24 (LIVE IN-PERSON)
Assignment 2 – 2nd Aggregation: site oversewing
Planning for collective living. Definition of large, medium and small scales - review

SESSIONS 25 - 27 (LIVE IN-PERSON)
Assignment 2 – 2nd Aggregation: site oversewing
Planning for collective living. Definition of large, medium and small scales - review

SESSIONS 28 - 30 (LIVE IN-PERSON)
Midterm Review – Deadline Assignment 2
Presentation Assignment 3 – 3rd Aggregation: site knitting
The third assignment will establish the requirements for an architectural definition of a collective living building and its construction, material, and social features for it to become a building fulfilling the needs of various scales. The assignment will focus on creating spatial and functional relationships between the ‘urban’ and the ‘domestic’.

SESSIONS 31 - 33 (LIVE IN-PERSON)
Assignment 3 – 3rd Aggregation: site knitting
SESSIONS 34 - 36 (LIVE IN-PERSON)
Assignment 3 – 3rd Aggregation: site knitting
Development of Urban and Domestic Relationships - review

SESSIONS 37 - 39 (LIVE IN-PERSON)
Assignment 3 – 3rd Aggregation: site knitting
Development of Urban and Domestic Relationships - review

SESSIONS 40 - 42 (LIVE IN-PERSON)
Development of Urban and Domestic Relationships - review

SESSIONS 43 - 45 (LIVE IN-PERSON)
75% Review – Deadline Assignment 3

SESSIONS 46 - 48 (LIVE IN-PERSON)
Site Embroidering
Construction specificity + urban & domestic detailing - review
*Introduction to CTE regulations on collective housing*

SESSIONS 49 - 51 (LIVE IN-PERSON)
Site Embroidering
Construction specificity + urban & domestic detailing - review

SESSIONS 52 - 54 (LIVE IN-PERSON)
Site Embroidering
Construction specificity + urban & domestic detailing – review
Narrative rehearsal

SESSIONS 55 - 57 (LIVE IN-PERSON)
Site Embroidering
Construction specificity + urban & domestic detailing – review
Narrative rehearsal

SESSIONS 58 - 60 (LIVE IN-PERSON)
Final Review

EVALUATION CRITERIA

27th June 2022
6.1 GENERAL OBSERVATIONS

Work will be assessed on a weekly basis through individual and group reviews. Grading will be based on the quality of the working process and deliverables for the midterm and the final review. In addition, evaluation will also consider student performance for the 25% and 75% reviews, as well as attendance, punctuality and overall engagement in the course.

MIDTERM EVALUATION

Student will receive an evaluation form with feedback, as well as with one of the following grades:

- **Check**: the student has reached the goals established for the first part of the semester.
- **Check +**: the student has surpassed the goals established for the first part of the semester.
- **Check -**: the student has not met the minimum goals established for the first part of the semester.

This grade will be based on the following variables:

- **PROCESS**, which will encompass work habits, production, development, and ability to evaluate and incorporate the received criticism. Active participation in group and individual conversations is key to developing a critical sense, and fundamental to develop a design process that is rooted in the students own ability to make their own decisions.

- **DELIVERABLES**, which will evaluate the relation quality-quantity of the production presented in relationship to what is meant to be communicated, and considering the work of the whole semester, with special emphasis on the work presented for the midterm review. Deliverables must include ALL mandatory documents specified before the Midterm Presentation.

The Midterm grade will not determine the final grade and should be taken only as an indication of progress.

Failing to present, verbally as well as graphically, or an absence during the midterm review will translate into the deduction of 2 (two) points from the final grade.

FINAL EVALUATION

For the Final Review the students will receive a grade on a scale from 0 to 10, with a minimum passing grade of 5.0. After the Final review, and considering the totality of the work developed over the course of the semester, students will be evaluated, as in the Midterm Presentation, on PROCESS and DELIVERABLES. Conditions on both evaluation aspects are as described above. Deliverables must include ALL mandatory documents specified before the Final Presentation.

Failure to participate in the final review, in terms of deliverables or in terms of attendance, will automatically translate into failing the whole course with a grade not higher than 4.5. No late submissions will be accepted.

ATTENDANCE

IE University establishes the following: students that do not attend at least 70% of all sessions will fail the course with a 0,0 and will proceed directly to third enrolment, without the chance to retake the course in second enrolment.

SECOND ENROLLMENT

Students that have failed the subject in first enrollment pass to the second enrollment. Those who do not meet the minimum attendance percentage according to IE University policies will not have the option of attending the second enrollment and will automatically pass to the third enrollment.
For those attending the second extraordinary exam period, the exam will have two parts: Part I that will be a presentation of the project originally produced during the ordinary period with a further development of those areas that were underdeveloped for the final review, and Part II which consists on a design exercise to be presented and administered the day of the exam. The students will have to pass Part I to be able to pass to Part II. Those students that do not pass Part I will go to third enrollment.

Part I and Part II should obtain a passing grade for the student to be able to pass the second enrollment. The minimum grade to pass the second enrollment is 5:00.

The second enrollment conditions and requirements will be explained by the professors in a specific document handed out to the students that fail the class. The students attending the second enrollment have the right of requesting office hours to follow the progress made in the improvement of their projects.

THE EXAM IS LIVE IN-PERSON AND IT WILL TAKE PLACE IN THE CAMPUS WHERE THE STUDENTS TOOK THE COURSE, SEGOVIA OR MADRID.

6.2 GRADING STANDARDS

According to IE University policies, the students will be evaluated on a scale from 1 to 10. The standards of each grades are described below:

- 1, 2, 3, 4: Not passing level of work -- significant areas needing improvement and/or not enough deliverables to properly represent the project strategy.
- 5: Passing level of work with a few areas needing critical improvement, and/or the need for developing minimum required deliverables to properly represent the project strategy.
- 6: Fair level of work with some areas needing critical improvement.
- 7: Consistent, solid work during the whole semester. Solid grade, student producing what is expected at that year level.
- 8: Advanced level of work for what can be expected at that year level.
- 9: Exceptional level of work, within the standards of a slightly higher year-level of studio.

Starting on a 9, the student could (according to the necessary consensus among professors) receive a MH as a recognition of an exceptional work.

- 10: Beyond exceptional level of work, within the standards of a much higher level of studio.

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<thead>
<tr>
<th>Criteria</th>
<th>Percentage</th>
<th>Comments</th>
</tr>
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<tbody>
<tr>
<td>PROCESS</td>
<td>60 %</td>
<td>Encompasses work habits, production, development, and ability to evaluate and incorporate the received criticism.</td>
</tr>
<tr>
<td>DELIVERABLES</td>
<td>40 %</td>
<td>Relation quality-quantity of the production presented in relationship to what is meant to be communicated.</td>
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PROFESSOR BIO

Professor: **MARCELA ARAGÜEZ ESCOBAR**

E-mail: maraguez@faculty.ie.edu

27th June 2022
Marcela Aragüez is Assistant Professor of Architecture and Associate Director of Undergraduate Studies in Architecture at IE School of Architecture & Design. She is a licensed architect with professional experience in Spain and Switzerland, and received her PhD in Architectural History & Theory at the Bartlett School of Architecture, UCL. Marcela's research focus lies in the production of adaptable architecture and cross-cultural post war practices in Japan. She has recently coordinated the joint research project ‘The Culture of Water’ in collaboration with the KIT in Japan and the HSLU in Switzerland. Marcela has lectured widely Europe and Japan, and her work has been acknowledged by grants and awards from institutions such as the Japan Foundation and the Sasakawa Foundation. She has published in international journals such as Roadsides and Architecture Research Quarterly.

OTHER INFORMATION