



## Course Syllabus

<b>Course Code</b>	<b>Course Title</b>	<b>ECTS Credits</b>
ARCH-594DL	Thesis	30
<b>Prerequisites</b>	<b>Department</b>	<b>Semester</b>
All Required Courses	Architecture	Fall
<b>Type of Course</b>	<b>Field</b>	<b>Language of Instruction</b>
Required	Research	English
<b>Level of Course</b>	<b>Lecturer(s)</b>	<b>Year of Study</b>
2 <sup>nd</sup> Cycle	Michalis Georgiou, Pavlos Fereos	2 <sup>nd</sup>
<b>Mode of Delivery</b>	<b>Work Placement</b>	<b>Co-requisites</b>
Distance Learning	N/A	None

### Course Objectives:

The course has two main directions: Thesis by Written Dissertation or Thesis by Design Project. The students choose a direction within the first 2 weeks of the course.

1. Thesis by Written Dissertation: Students formulate a research question based on their analysis of existing methodologies and projects and of computational design in Architecture.
2. Thesis by Design Project: Students produce a design component through computational methodologies that demonstrates their response to a research question. The Design Component can be either a Digital or Fabricated Architectural Design (via computational methodologies) OR a Computational Tool / System deployed in various case-studies.

The main objectives of the Written Dissertation direction of the course are to:

- Identify and research a subject of interest within the scope of the MSc programme.
- Develop the ability to understand methods of inquiry and terms of criticism appropriate for their individual thesis.
- Propose a research topic based on a well-defined research question.
- Utilise existing literature to undertake historical, theoretical visual analysis and field work in support of their research question.
- Develop a critical stance, raise questions and or propose a re-reading of theoretical / scientific information in relation to their topic.
- Produce an outline of ideas, structuring their argument and organizing thoughts in a logical sequence to demonstrate thinking and provide evidence in support of their argument

- Produce a Thesis that would provide new information or interpretations in the field of architecture and design and make a contribution to 'architectural' knowledge in general.
- Prepare an 8,000-word thesis and make a presentation in front of a committee.

The main objectives of the Thesis by Design Project direction of the course are to:

- Enhance theoretical knowledge on practical applications
- Show evidence, through their design, of advanced and innovative explorations in a diverse spectrum of fields of investigation, through a detailed examination of their proposal.
- Identify and debate on the various factors that influence their design decisions.
- Gain knowledge and experience on working on a design project, by responding to a variety of questions such as social, environmental, economic variables.
- Develop contemporary and innovative perspective in their fields of study.
- Cultivate problem solving skills through "research by design".
- Prepare a 4,000-word report thesis and make a presentation which will include their design project in front of a committee.

### Learning Outcomes:

After completion of the course students are expected to be able to:

1. Develop their own subject for research based on a well-defined research question.
2. Develop an ability to apply theoretical research to practical problems.
3. Be able to apply specialised knowledge into the design of build environments relative to the field of each student's concentration.
4. Be able to think in an innovative and creative way.
5. Be able to make an oral presentation, focusing on main theoretical issues that relate to computational design decisions.
6. Develop the ability to formulate, interpret and communicate appropriate concepts derived from contextual studies and theoretical research.

Students that choose the Thesis by Written Dissertation should also be able to:

7. Raise questions and/or propose a re-reading of theoretical information in relation to their research topic.
8. Create an outline of ideas and structure their argument in a logical sequence to demonstrate thinking and provide evidence in support of their argument.
9. Provide new information or interpretations in the appropriate field.
10. Develop the ability to formulate, interpret and communicate appropriate concepts derived from contextual studies and theoretical research.

Students that choose the Thesis by Design Project should also be able to:

11. Demonstrate Computational Design Skills and the understanding of Design to Fabrication process.
12. Demonstrate material properties understanding.
13. Comparatively place their own design project within the existing context of similar computational projects.
14. Produce a critical analysis and evaluation of their own design project.

**Course Contents:**

1. Individual meetings with participants to develop project.
2. Seminars that enhance Computational Skills in relation to each student's Research Question.
3. Seminars that enhance active exchange of views.
4. Final presentation.
5. Development of a Design Project Report (4.000 words).
6. Development of Thesis (8.000 words).

**Learning Activities and Teaching Methods:**

Self-analysis, self-assessment, individual support and feedback, forums, and chats, Student/tutor interaction (supervision and consultation), Individual instructions

**Assessment Methods:**

Formative assessment, assignments, individual research, presentations, feedback, discussions, final examination, Ability to complete an in-depth complex design project, Concept and Project development, Final presentation of the final project, Final written essay-Design Report, Portfolio assessment

**Required Textbooks / Reading:**

List ranges on the research interests of individual participant.

**Recommended Textbooks / Reading:**

List ranges on the research interests of individual participant.