
University Master's Degree in Biodigital Architecture

Genetic Architectures Office Project

uic.es/architecture

Universitat Internacional
de Catalunya
School of Architecture



After the last jury of Karl Chu Studio



Laboratory of Digital Architecture



Director of the Master's Degree

New architecture for a new era

The Master's Degree in Biodigital Architecture at UIC Barcelona is a pioneering programme that combines architecture, biology and new digital trends. Since the year 2000, this programme has been offering a unique approach to architecture from a biological and digital perspective. The teaching programme draws various parallels between new cybernetic-digital and ecological-environmental architectural design. It brings together concepts, experimental methodologies that use genetically-powered software, evolutionary processes, emerging systems, algorithms, parametric modelling and scripting. An innovative take on architecture that draws from areas such as genetics and generative design, natural versus digital and biology-based intervention.

A cutting-edge architecture and design programme that incorporates the latest conceptualisation and planning technologies: data-driven production, computer numerical control (CNC) machines, 3D printers, etc. Non-conventional architecture that applies and promotes the genetic and digital principles of variation, mutation and hybridisation.

Academic accreditation

An Official University Master's Degree, which provides access to doctoral programmes

Organising centre

School of Architecture,
UIC Barcelona, Campus Barcelona

Dates and timetable

- In November and December, students may undertake a voluntary preliminary online tutorized study which involves reading a specific list of books, articles and software manuals
- January to June: full-time work programme, every day (9 a.m. to 9 p.m.). On-site
- Deadline for Master's dissertation: end of September

Information and admissions

uic.es/contact-details
T. +34 93 254 18 00

Incoming students

If you are a university graduate from the areas of Architecture, Engineering, Fine Arts, Design, Landscaping, Biology or Genetics then this is the Master's degree for you. No prior specialised cybernetic or ecological knowledge is required.

Facilities

Digital Architecture Laboratory and Genetic Architecture Laboratory.

Academic teaching staff

Programme Director

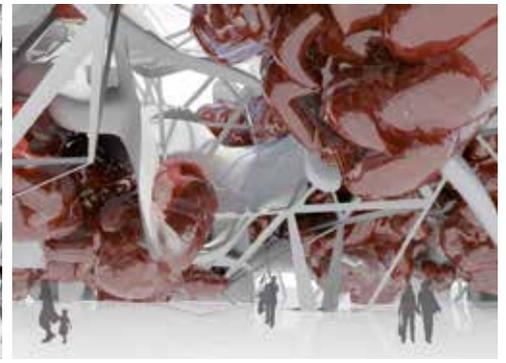
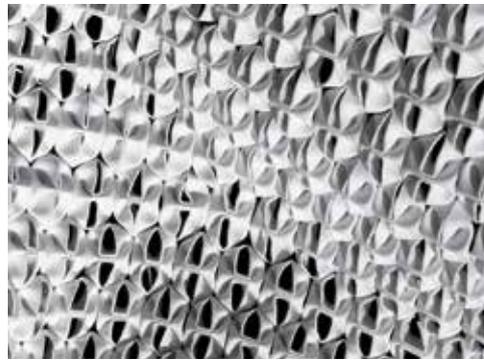
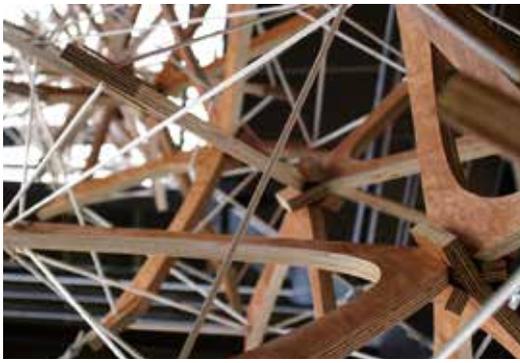
Alberto T. Estévez

Teaching Body

We have international professors who currently work in the new and pioneering field of biodigital architecture.

Teaching staff and conference speakers from previous editions:

Ezio Blasetti
Mark Burry
Bernard Cache
Karl S. Chu
Josep Corcó
Matías del Campo
Dennis Dollens
Evan Douglass
Alberto T. Estévez
Agustí Fontarnau
Daniela Frogheri
Mark Goulthorpe
Maruan Halabi
Michael Hensel
Neil Leach
Pablo Lorenzo-Eiroa
Duncan Lewis
Greg Lynn
Aref Maksoud
Sandra Manninger
Achim Menges
Marcos Novak
Kas Oosterhuis
Affonso Orciuoli
Ignasi Pérez Arnal
François Roche
Lars Spuybroek
Judith Urbano
Angad Warang
Mike Weinstock
(among others)



Projects by students from previous editions of the Master's Degree in Biodigital Architecture since 2000

Curriculum: 60 ECTS

Introduction to Genetics and Biodigital Architecture

Seminars and conferences on:

- Metaphysics and Computation
- Theories of Emergence
- The Fundamentals of Genetics
- The Emergent Character of Life
- Eco Manipulation
- Genetic vs. Generative
- Digital Tools and Organic Forms
- New Bio & Digital Techniques
- The Work of Antoni Gaudí and Salvador Dalí, source of Biodigital Architecture

Information Systems

- Digital Tools and Organic Forms

Practical classes to train students in digital tools (e.g. generative software, associative-parametric software, scripting, CAD-CAM production and mechanisation tools linked to product development).

Genetic and Biodigital Architectural Design

Studios and workshops with personalised tutorials in order to carry out the respective projects and research.

Master's Dissertation

Final presentation: end of September.

Language: English (with possible tutorized help for spanish speakers).

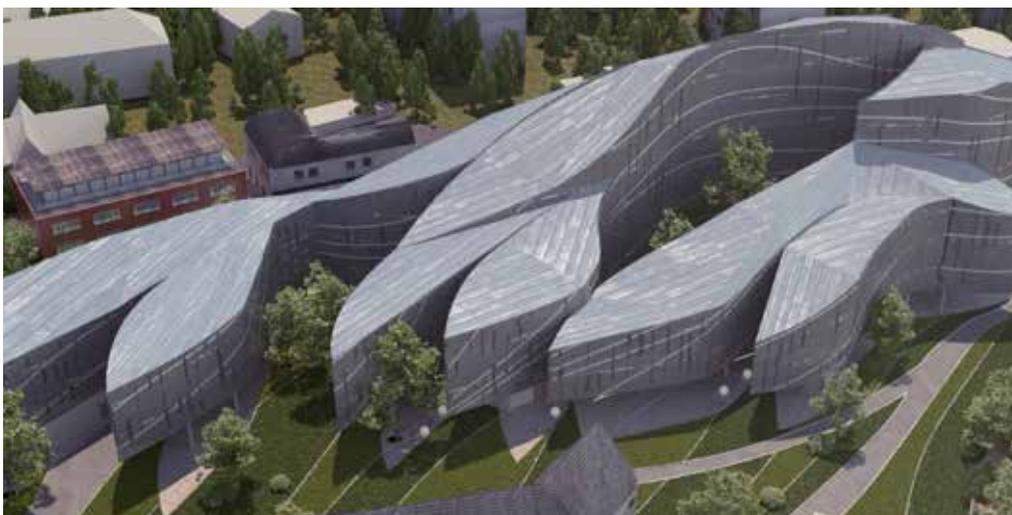
Length: 1 academic year, 9 months, 1.800 hours.

Objectives

You will discover and apply new biological, digital and genetic techniques to architecture and design. You will look in-depth into the architectural project from two approaches: cybernetic-digital and ecological-environmental.

At the end of the programme, you will have the following abilities and skills:

- The ability to create architectural projects which at the same time satisfy aesthetic advanced digital technology, environmental technology, biological and genetic demands as applied to architecture.
- The ability to work with advanced software applied to architecture.
- The ability to reflect on the principles of research and research methods for genetics and biology as applied to architecture, especially in terms of digital tools.
- The ability to incorporate knowledge and deal with interdisciplinary field-specific complexities such as IT, biology, genetics and architecture.



Genetic Architectures Office Project

Campus Barcelona
Immaculada, 22
08017 Barcelona
T. +34 932 541 800

UIC
barcelona
#morethanuniversity



Studying in Barcelona

Start the most important learning experience of your life in one of the main European cities. Barcelona is a cultural and financial role model and a city where your knowledge can adapt to multiple professional opportunities.

UIC Barcelona, our campuses

Classes are held on our Barcelona campus and also our Sant Cugat campus, which has a total area of more than 35.000 m². Each Faculty has the best facilities and latest generation equipment for both theoretical and practical classes.

Find out more about the admissions procedure, reserving a place and enrolment here uic.es/en/studies. Click on uic.es/becas-masters to find out more about funding programmes, discounts and grants.



uic.es/architecture

Universitat Internacional
de Catalunya
School of Architecture