

UCLA AUD TeenArch Institute 2025

There are three different options. All sessions will follow the same Syllabus.

In-Person options:

TeenArch Session A.1 In-Person (Residential Housing on UCLA Campus)

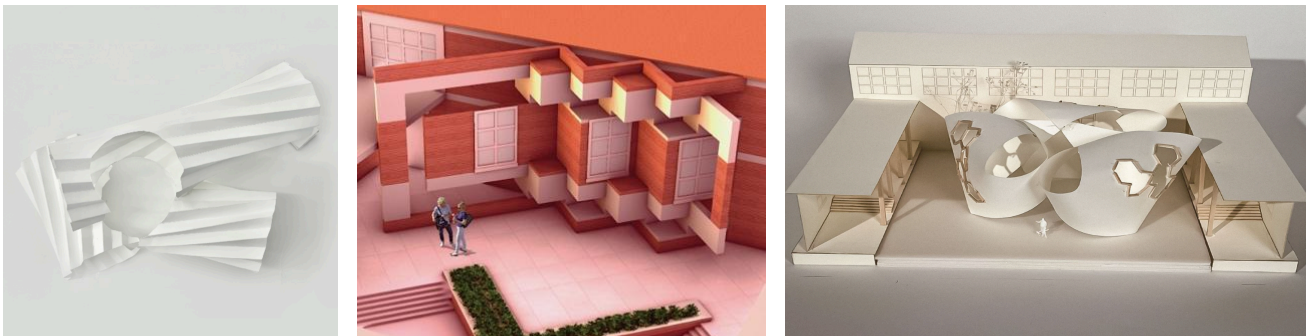
TeenArch Session A.2 In-Person (Commuter without Housing on UCLA Campus)

Remote options:

TeenArch Session B (Remote - Virtual, without Housing on UCLA Campus)

FOLD TO FORM SYLLABUS

Join us for an architecture experience at UCLA, the #1 Public University. Led by AUD Summer Programs Director Julia Koerner, the TeenArch Studio engages students in a wide range of activities, from intensive design exercises, individual feedback sessions, and small group discussions, to studio-wide presentations and reviews. Students will be introduced to the conceptual and technical facilities essential to the study of architecture as a discipline and its practice as a profession. To supplement studio activities, weekly lectures from UCLA faculty and notable guest designers will explore the many facets of idea-driven design, as well as urban and design culture in Los Angeles.



UCLA AUD TeenArch Student Work 2023/2024

OVERVIEW AND TOPIC:

From point to line to plane to volume - architecture takes shape - and it begins with a single sheet of paper. It has been said that there is nothing more terrifying for a designer than a blank piece of paper – because it is the embodiment of limitless possibilities. A single point could become a line in infinitely many directions, branching then again in infinitely more directions. But every design has a through line – a way to describe from beginning to end the process taken to arrive at the final product.

In the UCLA AUD TeenArch Studio students will begin by studying techniques with paper folding. They will understand how form and volume take shape through a series of deliberate operations. Through diagrammatic drawing, physical model making, and 3D modeling they will learn how to generate codified systems in order to abstract inspiration and figuration from a seemingly abstract form to create order in the form of a simple enclosure.

Students will develop an extension to the courtyard plaza in front of Perloff Hall, the building housing the architecture and urban design department. They will use their origami models and architectural drawings to inform their design taking into consideration feedback they have received over the course of the studio.



BACKGROUND:

Paper is one of the oldest materials architects work with, they use it for sketching, writing, drawings and model making. Paper is a thin non-woven material traditionally made from a combination of milled plant and textile fibers. The first paper-making process was documented in China (25–220 AD). During the 8th century, Chinese paper-making spread to the Islamic world, where pulp mills and paper mills were used. By the 11th century, 5 paper production was brought to Europe. By the 13th century, the creation of paper was refined with paper mills utilizing water wheels in Spain. Later European improvements to the process came in the 19th century with the invention of wood-based papers. The history of origami followed after the invention of paper and was a result of paper's use in society. Independent paper folding traditions exist in East Asia, and it is unclear whether they evolved separately or had a common source. The Japanese word "origami" itself is a compound of two smaller Japanese words: "ori" (root verb "oru"), meaning to fold, and "kami", meaning paper.

Several architects in history have taught the method of folding paper models. Josef Albers challenged his students at the Bauhaus to think deeply about the art of construction by using a single sheet of paper to create a 3D design. The material lends itself to the creation of 3D geometry and volume and the study of structural performance, which is a great way to learn about form making at the beginning of your creative career.



A paper Sculpture abstraction by Irene Shawinsky (1903-1990). Photo from the Museum of Modern Art. This piece, over a yard wide, was made by cutting a "doughnut" from a very large sheet of white paper, scoring it in concentric lines, accordion-pleating it and hanging it from wires so that it would take these convolutions of its own weight. Joseph Albers examining a folded paper construction with students at Black Mountain College 1946 Photo: Genevieve Naylor Joseph Albers Paper Model Bauhaus

OBJECTIVES:

TeenArch is a summer design studio that introduces teenagers to conceptual and technical facilities essential to the study of architecture as a discipline. The course will inspire students to engage in idea-driven design.

Applicants attend the course for 3 weeks. The three weeks course is organized into Studio Sessions on Monday and Wednesday, Tech Seminars on Tuesdays and Thursdays, and Group Pinups on Fridays. All of the above is planned to be organized in person and local housing accommodation is available for the in-person program, or exclusively on Zoom for the remote program.

ORGANIZATION:

Students will be assigned an instructor, teaching assistant, and studio space. Studio time will be supported by weekly lectures given by faculty and guest designers exploring many facets of idea-driven design. Software and fabrication tool tutorials will be provided each week as relevant to assignments.

UCLA AUD TeenArch Institute 2025

The course is organized around design studio culture, which comprises a range of activities from desk critiques, to small group discussions, to studio-wide pin-ups, to final reviews with a panel of guest critics. Students' thoughtful production of design work in between such activities is essential and should respond to the new materials and skills provided by instructors.

CREDIT HOURS:

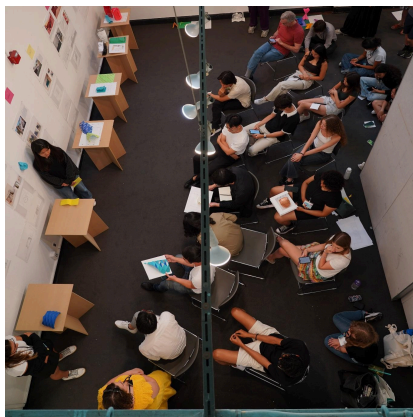
Teen ArchStudio three-week program carries three quarter units of UC credit.

POLICIES & PROCEDURES:

Attendance

Attendance is mandatory during class time, dialogs, lectures, reviews, pin-ups, tutorials, and workshops. If you do not present your work at reviews, you will not receive credit for the studio. In the scenario of distant learning, some tutorials and lectures will be recorded and offered asynchronously. Students are expected to not miss more than 2 classes in order to receive credit. Three unexcused absences will result in a failing grade.

Work culture and Absences



UCLA AUD TeenArch Studio 2023

Students are required to work in the studio. In the scenario of distant learning, students will work from home. All technical equipment needed for the course such as a laptop, and drawing material will need to be acquired by the participants prior to the start of the course. A document outlining these requirements will be made available prior to the opening of the course registration.

All activities requiring absence from studio meetings i.e. purchasing materials or running project-related errands) should be scheduled outside of studio hours. If you have to leave in the middle of, or prior to the end of regularly scheduled studio times, this should be discussed with your instructor.

Grading

Course grades are P/NP grade (Pass/No Pass). Any questions regarding grades or policies should be directed to your instructor or to the program director. A passing grade in the course requires dedicated completion of all projects.

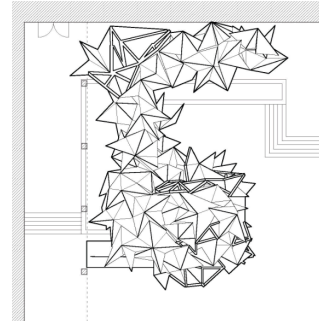
Archiving

At the conclusion of the summer program, you will be asked to archive your work. There will be time to do so the morning before your final review. Save all of your files to the 2024 Student Work folder. Submit your

UCLA AUD TeenArch Institute 2025

individual photo or drawing files in 300 DPI JPGs with the following names:

TeenArch_2024_YourInstructorsLastName_YourLastName_01.jpg



UCLA AUD TeenArch 2024 Student Work

Student Privacy

This program uses video recording or other personal information capture for the purpose of facilitating the course and/or test environment. Pursuant to the terms of the agreement with UCLA, the data is used solely for this purpose and any vendor is prohibited from disclosing this information. UCLA also does not use the data for any other purpose. Students may not distribute recordings or other instructional materials provided as part of remote learning by faculty, teaching assistants, or invited guests.

RESOURCES:

1332 Murphy Hall, Los Angeles, CA 90095 phone:

310-825-4101 email: institutes@summer.ucla.edu

UCLA Architecture and Urban Design, 1317 Perloff Hall, Los Angeles, CA 90095

email: summer@aud.ucla.edu

STAFF:

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TBD

SCHEDULE & Exercises

Week One

Considering their folded-paper precedent, students will begin to explore the fundamentals of architectural and diagrammatic drawing and model making.

Monday

Morning Session: Start Welcome and Studio Introduction

Schedule and Syllabus Overview Lecture

Intro to Paper Models Lecture

Afternoon Session

Topic: Precedents in architecture and design. Abstraction of concepts and ideas from precedents.

Task: Student introductions/ Warm-ups.

Studio Leaders will discuss the concept of precedents in architecture and design and provide the students with a selection of precedents.

Students will choose one or two precedents from the ones presented by the Studio Leader. Students will start analyzing their precedents by recreating the paper model and diagrams.

Tuesday

Select and construct your folded paper precedent. Draw your precedent in plan and elevation. Unfold your origami into a flat surface and diagrammatically explore ways to codify different folds through drawing. Develop several iterations. Develop a new coded system for line/fold typologies that begins to consider architectural applications.

Explore ways to combine two or more of your diagrams (overlap, intersect, pivot, reflect, etc.). Consider the implications if two different line types overlap or intersect (what happens if an extrusion intersects a crease? If a curve overlaps a duplicate?)

Explore these possibilities both through diagrammatic drawing and paper models. Introduce plan and elevation drawing types.

Wednesday

Lecture: Field Trip Projects

Work in Studio: Continue, from Tuesday, your diagrammatic folding explorations both through drawing and material manipulation. Continue working on plan and elevation drawings and prepare to discuss them in a cohesive presentation.

Friday

Field Trip. Plan to take notes and sketch throughout the field trip.

Week Two

Monday

Morning Session:

Introduction of the Perloff Hall Courtyard Site Lecture.

Introduction to different types of architectural extensions Lecture.

Afternoon Session:

Working within the logic of folded planes, students will develop an architectural intervention to be situated in the courtyard of Perloff Hall.

Use your diagrammatic models and architectural drawings from the previous week's review to inform your design. Consider and incorporate the feedback you have received.

UCLA AUD TeenArch Institute 2025

Tuesday

Continue your explorations both through drawing and material manipulation.

Consider how you would translate your explorations into digital 2D drafting & 3D modeling.

Wednesday & Thursday

Consider your design in relation to real world materials and user/occupant applications.

Refine your design and develop atmosphere through collage.

Develop plans, sections, elevations and a polished physical model of your design, and refine your diagrams.

Friday

Mid Review: Refine your designs and prepare to discuss them in a cohesive final presentation and exhibition for instructors and guests.

Requirements:

1- Connect with the site - (choose a minimum of one)

Structure (example: Columns, Walls, Roof)

Circulation (example: Stairs, Pathways)

Existing Windows or Doors

Landscaping (Planters)

2- Choose a type of connection (as covered in Monday's lecture) that relates to the existing building (Perloff Hall).

- Intersection, Align, or Lean

3- Choose a program

Week Three

Monday

Morning Session:

Representation & Portfolio Lecture

Afternoon Session:

Select two of your final model photographs (one from above, and one viewing straight-on) and convert them into digital line drawings using Adobe Illustrator. Pay careful attention to line-weights and perspective. From these drawings, infer a plan and a section and draw these digitally.

Develop a coded diagram in which different shading/hatching suggests variations in the design (i.e. different materials, depths, surface orientations, etc.)

Individual studios will focus on progressing different types of representation styles. This can be through a combination of drawings, photographs, rendering, collage, and more.

Students should become familiar with the portfolio template and understand the fundamentals of putting together a simple portfolio.

Tuesday

Continue your digital drawing and diagrammatic explorations and prepare to discuss them in a cohesive presentation.

Wednesday

Photolab session per studio for professional model shots.

Work in Studio: Refine your designs given consideration of feedback.

Develop renderings for your design using Adobe Photoshop. Incorporate entourage, location context, and atmospheric conditions.

Thursday

Continue to refine your designs through digital drawing and rendering. Place your designs into a cohesive presentation layout (dimensions to be provided).

Friday- FINAL REVIEW

Finalize your designs and presentation boards, print, and prepare to discuss them in a cohesive final presentation and exhibition for instructors, invited guests, and families.

DELIVERABLES

Week 1:

- > Three (3) paper models exploring your precedent.
- > One (1) iteration of your "codified" unfolded diagram.
- > One (1) sketch Plan of your own version of your precedent. (no defined scale for week 01)
- > One (1) sketch Elevation of your own version of your precedent. (no defined scale necessary for week 01)
- > Short written statement on why you chose that precedent and what elements are you most keen in exploring through your representations. (3-4 sentences)

Optional:

- > One (1) Additional paper models exploring your precedent.
- > One (1) Additional "codified" unfolded diagram.

Mid Review - Week 2:

- > One (1) paper model exploring the next interactions of your transformed form to an architectural extension.
- > Three (3) photographs of your preferred new model (plan, elevation and perspective) - Taken with a white background and with the site model.
- > One (1) Roof Plan drawing of your extension- digital*
- > One (1) Cut Plan drawing of your extension- digital*
- > One (1) Elevation drawing of your extension - digital*
- > One (1) Section drawing of your extension - digital*
- > Written statement of what from your previous design you decided to keep or take out and why this was necessary or your design preference when transforming it into an architectural project. How does your new design engage with the site? (8 - 10 sentences)

Optional:

- > One (1) Digital collage of your architectural extension situated on site (Using Photoshop or mixed media).
- > One (1) diagram illustrating how the precedent evolved into the architectural extension (This shows the step-by-step transformation you made to adapt for an extension).
- > Additional paper models exploring the next iteration of the transformed extensions.

Final Review - Week 3:

- > One (1) Final paper model of your extension design
- > Three (3) Photograph of your final extension model - with the site model
- > One (1) Cut Plan drawing of your extension- digital*
- > One (1) Roof Plan drawing of your extension- digital*
- > One (1) Elevation drawing of your extension (Possibly including materiality) - digital*
- > One (1) Section drawing of your extension - digital*
- > One - Two (1 - 2) Digital collage/ rendering of your extension situated on site (Using Photoshop).
- > Written statement of the process you developed to go from your original folded forms to now your architectural extension and the reasoning behind the decisions you made in terms of materiality, form, scale, and position in context with the given site. (10 - 15 sentences)

Some Questions to think about answering in your statement:

- How did your original paper folded form influence or inspire your final design?
- What site specific elements with you draw upon to position and orient your architectural extension?
- What experience (both external and internal) do you envision this project creating?
- What materials or formal techniques did you choose and why?

Optional:

- One (1) Perspective Drawing (including materiality) - digital*
- One (1) - Digital Diagram exploring the codified system of your final extension (similar to the diagrams we did with the folded paper models week 01)

