

SUMMER 2022

## ACE SUMMER CAMP

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### PROGRAM GUIDE

University of Colorado Denver  
College of Architecture and Planning

COURSE ACE Summer Camp  
SEMESTER Summer 2022  
SCHEDULE July 24- 30

PROGRAM COORDINATOR Jeana Delamarter  
LEAD INSTRUCTORS Adam Wagoner  
Rebekah Wagoner

TAs Angie Crum  
Riley Wines



Tatiana Bilbao

#### OVERVIEW *ACE Mentor Program | Summer Camp*

The ACE Summer Camp is open to rising high school juniors and seniors, as well as recent graduates, and is a week-long overnight summer camp on the University of Colorado Denver campus. Faculty from CU Denver's architecture program will lead a design build project with other students from ACE Mentor affiliates across the US. Evenings and additional activities will include exploring all that Denver and the Rocky Mountains have to offer.

## ACE SUMMER CAMP

## PROGRAM GUIDE

## SCHEDULE

**day 1 | Saturday, July 23**

12pm	4pm	Arrival
4pm	5:30pm	Campus Tour & Orientation
5:30pm	7pm	Dinner at City Heights
7:30pm	9:30pm	Bowling - Denver Athletic Club
10:30pm		Lights Out

**day 2 | Sunday, July 24**

7am	8:30am	Breakfast
9am	10:30am	Lecture - Architecture at the City Scale
10:30am	12pm	Excursion - Walking Tour
12pm	1pm	Lunch
1pm	4pm	Studio - City Program Workshop
4pm	5pm	Workshop - 3D Modeling Introduction
6pm	7pm	Dinner
7pm	9:30pm	Free Time - Games in Dorm
10:30pm		Lights Out

**day 3 | Monday, July 25**

7am	8:30am	Breakfast
9am	10:30am	Excursion - Firm Visit to Gensler Office
10:30am	12pm	Studio - City Program Workshop (2)
12pm	1pm	Lunch
1pm	3pm	Excursion - Engineering School
3pm	4pm	Workshop - Sketching in the City
4pm	8pm	Elitch Gardens Amusement Park
10:30pm		Lights Out

**day 4 | Tuesday, July 26**

7am	8:30am	Breakfast
8:30am	1pm	Excursion - Sketching in the Mountains
1pm	2pm	Workshop - 3D Modeling
2pm	4pm	Studio - Design-Build Project
4pm	5pm	Workshop - Laser Lab
6pm	7pm	Dinner
7pm	9:30pm	Free Time - Games/Movie in Dorm
10:30pm		Lights Out

## ACE SUMMER CAMP

## PROGRAM GUIDE

## SCHEDULE

**day 5 | Wednesday, July 27**

7am	8:30am	Breakfast
9am	12pm	Studio - Design-Build Desk Crits
12pm	1pm	Lunch
1pm	2pm	Excursion - Firm Visit to Design Workshop
2pm	6pm	Studio - Design-Build Project
6pm	7pm	Dinner
7pm	9:30pm	Free Time - Games in Dorm
10:30pm		Lights Out

**day 6 | Thursday, July 28**

7am	8:30am	Breakfast
9am	12pm	Studio - Design-Build Desk Crits
12pm	1pm	Lunch
1pm	5pm	Studio - Design-Build Project
6pm	7pm	Dinner
7pm	9:30pm	Free Time - Games in Dorm
10:30pm		Lights Out

**day 7 | Friday, July 29**

7am	8:30am	Breakfast
9am	12pm	Studio - Design-Build Project
12pm	1pm	Lunch
1pm	2pm	Studio - Design-Build Project
2pm	6pm	Studio - Design-Build Project Final Reviews
6pm	9:30pm	Dinner Out & Souvenir Shopping
10:30pm		Lights Out

**day 8 | Saturday, July 30**

7am	8:30am	Breakfast
9am	11am	Depart - Camp staff to escort students to the train station and on to the airport for departure

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PROGRAM GUIDE



Florence - Alexander Chen

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DAY 2

LECTURE - ARCHITECTURE AT THE CITY SCALE

PERSON Lead Instructors- Adam & Rebekah Wagoner  
Guest Instructors - Ken Schroeppel

OUTCOME The goal of this lecture is to expand preconceived notions of architecture and to begin to understand the city as a complex network of interconnected parts.

DESCRIPTION Welcome lecture by Adam & Rebekah (45 min)

- Brief introduction of history of architecture
- the Master builder: Brunelleschi- combination of contractor, engineer, & architect)
- Duomo example- there is a design problem & the solution that involves engineering, construction, & design for a meaningful urban space
- the goal of architecture: to elevate & organize the creation of space; at the scale of furniture to an entire city
- goal for this summer camp is for you to use design as a tool to study possibility and change at different scales

Lecture by Guest Instructor (45 min)

- outline TBD
- general outcome to discuss the urban fabric as an interconnected organism made up of different parts
- prepping for a walk, discussing different parts of a city and design at different scales

Instructions by Adam & Rebekah for walking tour:

- Bring sketch books & make a list of (at least) 10 programmatic components of a city
- Make (at least) 1 sketch during the walk

## ACE SUMMER CAMP

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### PROGRAM GUIDE

#### EXCURSION - WALKING TOUR

PERSON	Guest Instructors - Ken Schroeppel
OUTCOME	Students able to identify important elements of a city and understand how they work together or don't work together.
DESCRIPTION	Path of tour TBD (Larimer Square, 16th Street, Capital, Golden Triangle, Cherry Creek Trail for example)
DELIVERABLE	Students carry a sketch book and make a list of 10 programmatic components of a city; students make 1 sketch during the walk



Centre Pompidou, Renzo Piano and Richard Rogers

#### STUDIO - CITY PROGRAM WORKSHOP

PERSON	Lead Instructors- Adam & Rebekah Wagoner TAs- Angie & Riley
OUTCOME	Interactive workshop discussing the programmatic make-up of a city; start understanding the connections, systems, & organization; rethinking these elements in a vertical arrangement; formulate a concept for the overall city organization; break into groups & select program
DESCRIPTION	Workshop on the elements of a city: <ul style="list-style-type: none"><li>Have students list out different components of a city from the walking tour (add each one to sticky note on whiteboard)</li></ul>

## ACE SUMMER CAMP

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### PROGRAM GUIDE

- Start identifying categories & grouping the sticky notes into the categories (housing, commercial, civic, infrastructure, parks/farm)
- Discuss concepts of proximity & distance between these different program categories and start moving the sticky note groups closer/further to reflect this conversation
- Disruption: now think about these concepts related to a vertical city
- Short presentation of Evolo competition renderings, futuristic movies, & statistics on growing populations & available land area
- Discuss how changing from a typical city to a vertical city changes any of the program proximity analysis
- Explain design-build project (roll in the super-structure grid)
- \* In the same way that architects and urban planners are thinking about organized space and relationships, you guys will be crafting the same thing for your city
- Formulate a organizational concept (talk through diagrams of: club sandwich, cobb salad, or smoothie)
- Break class into 6 groups (~5 students per group) & allocate (12) cubes per group ( $12 * 6 = 72$  cubes of the total 81 cubes)
- Have students discuss, in groups, what program they want and how many cubes and where they should be located (20 minutes)
- Group discussion on how /where to select the “real estate” of the tower (each group uses a different colored construction paper & tape to “reserve” their cubes)
- Group activity of negotiating & selecting cube locations

#### WORKSHOP - 3D MODELING INTRODUCTION

PERSON TAs- Angie & Riley

OUTCOME Students gain basic understanding of modeling solids in Rhino

DESCRIPTION Students will work in partners in the computer lab, and within Rhino, students learn how to :

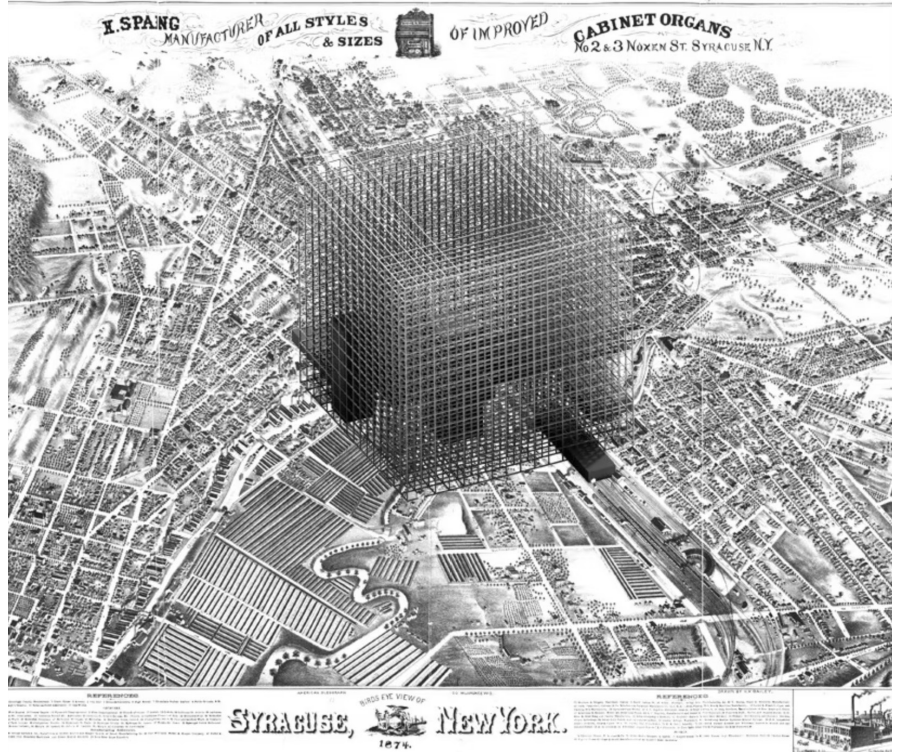
- navigate within 3D digital space
- work with different views (plan, elevation, & axon)
- do basic commands (move, copy, mirror, array, etc.)
- draw objects in scale
- draw solid forms
- perform boolean commands with solid forms
- manipulate 3D solids by moving 3D faces, scaling 2D, scaling 1D
- change basic view styles
- export drawings (axon views and scaled plans & elevations)



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PROGRAM GUIDE

The Megastructure Syracuse, New York, 1874  
Adrian Labaut Hernandez



**DAY 3**

**EXCURSION - FIRM VISIT TO GENSLER**

PERSON Lead Instructors- Adam & Rebekah Wagoner  
Guest Instructors - Alex Garrison & Jeff Hall (TBD)  
TAs- Angie & Riley

OUTCOME Students experience a working architecture firm and gain more information on collaborative design process, urban design, & resilience

DESCRIPTION Class walk to Gensler Office (17th & Lawrence St.)

- Tour of office
- Short presentation on Gensler design collaboration and project example (Cherry Creek Master Plan)

**STUDIO - CITY PROGRAM WORKSHOP (2)**

PERSON Lead Instructors- Adam & Rebekah Wagoner  
TAs- Angie & Riley

OUTCOME Students transition from group collaboration to individual projects and begin design development

## ACE SUMMER CAMP

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### PROGRAM GUIDE

- DESCRIPTION
- Recap of previous studio session
  - Program groups meet to continue discussion of program types, locations, and design ideas (10 minutes)
  - Short presentation on design iteration working methods (sketching, study models, & digital models)
  - Students working individually or in groups on their designs
  - Lead instructors & TAs do desk crits with each program group
  - Presentation on final model graphics, techniques, and standards

#### EXCURSION - ENGINEERING SCHOOL

[by others, to be confirmed by Program Coordinator]

#### WORKSHOP - SKETCHING IN THE CITY

- PERSON INSTRUCTOR - TBD  
TAs- Angie & Riley
- OUTCOME Students gain basic understanding of sketching principles and use it to explore the city and how programs relate
- DESCRIPTION Tutorial on the basics of sketching  
Understanding: form, proportion, perspective, tone, line weight, scale, & figures  
Excursion to location close to school, students disperse with sketchbooks for 40 minutes of sketching  
Regroup and discuss what they observed & sketched
- DELIVERABLE Students do a minimum of 5 sketches, each showing an example of how 2 (or more) city programs are relating to each other. Example: how an office tower meets the street, or how residential is above retail, or how a park space relates to office, etc.

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#### DAY 4

#### EXCURSION - SKETCHING IN THE MOUNTAINS

- PERSON TAs- Angie & Riley
- OUTCOME Students continue practice of sketching in a natural environment
- DESCRIPTION
- Bus ride into mountains
  - Short (optional) hike, students disperse with sketchbooks for 1 hour of sketching
  - Regroup and discuss what they observed & sketched
  - Packed lunches & then bus ride back to school
- DELIVERABLE Students do a minimum of 5 sketches of anything in the natural environment



## ACE SUMMER CAMP

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### PROGRAM GUIDE

#### WORKSHOP - 3D MODELING

PERSON TAs- Angie & Riley

OUTCOME Partnered up in the computer lab, students continue developing modeling skills in Rhino with the goal to utilize the digital work flow to construct scaled physical models

DESCRIPTION

- TAs review modeling to scale (preparing the digital model to be a useful resource to create their physical model)
- Short presentation on more advanced techniques of form manipulation and detailing
- Setting up & exporting views to create scaled physical model
- File set up and prep for laser cutter
- Working session for students to begin modeling their design-build projects
- TAs are available for modeling question & answers

*\*Note: students can remain in the computer lab for the following studio session, if they want to develop their studio project through 3d modeling (one TA to remain with students who stay in computer lab)*

#### STUDIO - DESIGN-BUILD PROJECT

PERSON TAs- Angie & Riley

OUTCOME Students use this time to start designing their individual program pieces for the design-build project

DESCRIPTION

- Students can choose their medium for design process: sketching, 3D modeling, or physical study models
- TAs are available for questions and desk crits

#### WORKSHOP - LASER LAB

PERSON TAs- Angie & Riley

OUTCOME Students gain basic understanding of the laser cutting process and possibilities.

DESCRIPTION

- TA's show a few physical examples of laser cut models
- Export files to laser cutter
- Demonstrate laser cutter process, and safety protocols, for cutting with chip board

## ACE SUMMER CAMP

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### PROGRAM GUIDE

#### DAY 5

##### STUDIO - DESIGN-BUILD DESK CRITS

- PERSON Lead Instructors- Adam & Rebekah Wagoner  
TAs- Angie & Riley
- OUTCOME Students continue working on their designs, while lead instructors and TAs meet with each program group for desk critiques
- DESCRIPTION
- mostly working studio time, with program groups meeting with TAs or lead instructors for design review
  - students should be able to convey their design intent in the medium of their choice (sketching, 3D modeling, or physical models)

##### EXCURSION - FIRM VISIT TO DESIGN WORKSHOP

- PERSON TAs- Angie & Riley
- OUTCOME Students experience a working landscape architecture firm and gain more information on collaborative design process, urban design, & resilience
- DESCRIPTION Class walk to Design Workshop Office (1390 Lawrence St #100) and tour of office space (& discussion of work that is displayed)

##### STUDIO - DESIGN-BUILD PROJECT

- PERSON TAs- Angie & Riley
- OUTCOME Students use this time to continue working on their design-build project
- DESCRIPTION
- students should begin testing study models within the structural frame
  - TAs are available for questions and desk crits

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#### DAY 6

##### STUDIO - DESIGN-BUILD DESK CRITS

- PERSON Lead Instructors- Adam & Rebekah Wagoner  
TAs- Angie & Riley
- OUTCOME Students continue working on their designs, while lead instructors and TAs meet with each program group or individual students for desk critiques
- DESCRIPTION
- mostly working studio time, with program groups meeting with TAs or lead instructors for design review
  - students should be able to convey their design intent in the medium of their choice (sketching, 3D modeling, or physical models)
  - Lead instructors give short presentation about final review, expectations & and how to prepare

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PROGRAM GUIDE



Tatiana Bilbao

**STUDIO - DESIGN-BUILD PROJECT**

PERSON TAs- Angie & Riley

OUTCOME Students use this time to continue working on their design-build project

DESCRIPTION

- students should be working on their final physical models
- TAs are available for questions and desk crits

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**DAY 7**

**STUDIO - DESIGN-BUILD PROJECT**

PERSON TAs- Angie & Riley

OUTCOME Students are putting final touches on physical models and working on verbal presentations

## ACE SUMMER CAMP

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### PROGRAM GUIDE

#### STUDIO - DESIGN-BUILD PROJECT

PERSON TAs- Angie & Riley

OUTCOME Students prepare the space and final model for critique and rehearse presentations.

#### STUDIO - DESIGN-BUILD FINAL REVIEWS

PERSON Lead Instructors- Adam & Rebekah Wagoner  
Guest Instructors - Ken Schroepel, Matt Gines, Leo Darnell, Alex Garrison, Jeff Hall, etc (TBD)  
TAs- Angie & Riley

OUTCOME Students learn how to present a project, how a jury critique works, and receive feedback on the design decisions they made as well as the craftsmanship of their final model

DESCRIPTION

- lead instructors give introduction to jury members about the camp, project, and process
- lead instructors give a brief summary to students on how a design review & critique works
- (2-3) students give an introductory presentation about their overall design and approach
- (2-3) students from each program group present on their final designs with jury review and critique (not only of the project, but also the process and presentation)