



### COMMUNITY HEALTH CLINIC

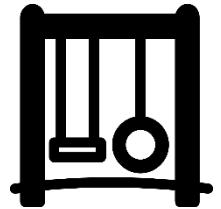


Create a meeting point for individuals, families, and visitors, in need of medical treatment, checkups, and therapy that will present a whole-life feeling and reduce or eliminate the fear, anxiety, and boredom often associated with visiting medical clinics. The construction features of this facility must be the key to create a place where openness and diversity prevail -- where children, young people, and adults all feel at ease, whether they are the patient or just accompanying such a person. This challenge envisions an integrated clinic serving a local community, therefore should reflect “the style” of the area it will serve.

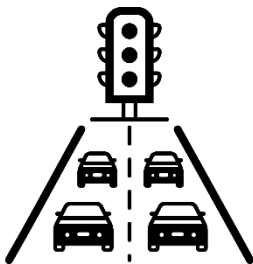
Site selection is critical as well as use/reuse of the available assets in the community (vs. new construction). Central to any solution should be the incorporation of elements that help facilitate the medical interaction (enhance flow, comfort, and recovery), as well as address the needs of accompanying individuals regarding waiting times, diversions, and entertainment. Think safety, too and equipping your final solution with the latest smart building and security technologies. The underlying goal of the design/construction proposal: find innovative ways to make something that is in general done with “dread” into something that enhances people’s quality of life and health experiences.

### PLAYGROUND or PLAYSCAPE

This challenge seeks to find exciting proposals to transform neglected parts of areas/cities into interactive landscapes, encouraging public engagement, community involvement, and sustainable adaptive reuse. It asks teams to provide a design/construction solution, which advocates creativity and promotes outside activity, increasing socialization, and interaction. Teams should site their proposals in an abandoned or forgotten site (site selection is critical), and develop a new era playground or playscape that creates opportunity for interaction and play for citizens of all ages.



### ALLEVIATE URBAN TRANSPORTATION CONGESTION



This option asks teams to tackle the task of alleviating transportation congestion in urban settings. Moving large numbers of people in relatively small or restricted urban areas is an all too commonplace problem in modern societies. The challenge involves identifying the various assets or means of transportation, their relative importance, limitations, and potential to alleviate the congestion. Once identified, Teams propose a single element to be addressed with a cohesive design and CONSTRUCTION solution that has the greatest potential to alleviate the problems.

For example, replace a bridge or put a new one in to vastly improve flow of vehicle traffic, propose high-occupancy toll lanes, enhance or install a mass transit system, improve intermodal points to improve flow, etc. A great local example to look up is the Atlanta Beltline project.

### WILD CARD

If one of these 3 projects don’t best fit your community and community partner’s needs, then you and your group can choose another that does. However, please consult and get approval from your lead mentor and mentor team first.



# Project Parameters

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## PROJECT DESIGN PARAMETERS

***Design & Build something light, small, and low-cost that makes a Community Impact. Due to project budget restraints, be as resourceful as possible by using recycled/upcycled materials and easily replicable or modular construction methods.***

**Structure Physical Limits:** Maximum 8ft L x 8ft W x 10ft H

If you need a larger footprint, please consult with your lead mentor.

### **Key Site Considerations to Tie Into:**

Site Context, Local Connectivity, Parking, Restrooms

Transportation, Circulation, Accessibility, Site Topography

This needs to be discussed early, during the Site Analysis phase before final site selection.

**Key Considerations:** City Zoning, Building Codes, Permits, Setbacks, Site Boundaries

**Project Size:** Scale your project appropriately to meet the needs of the location and end users. Please remember your limited time and budget.

**Drawing Scale:** During the Design Development phase and beyond, use a real drawing scale such as  $1/8'' = 1'-0''$  to create final construction ready documents.

**Scaled Dimensions TIP:** Find a real dimension to start from. If no dimensions are provided, find a common object you know a dimension of. Ex: A regular parking space is typically 9' x 18' and stair treads are roughly 1' deep.

**NOTE:** Please consult your lead mentor if you have any other questions.

# Program Schedule

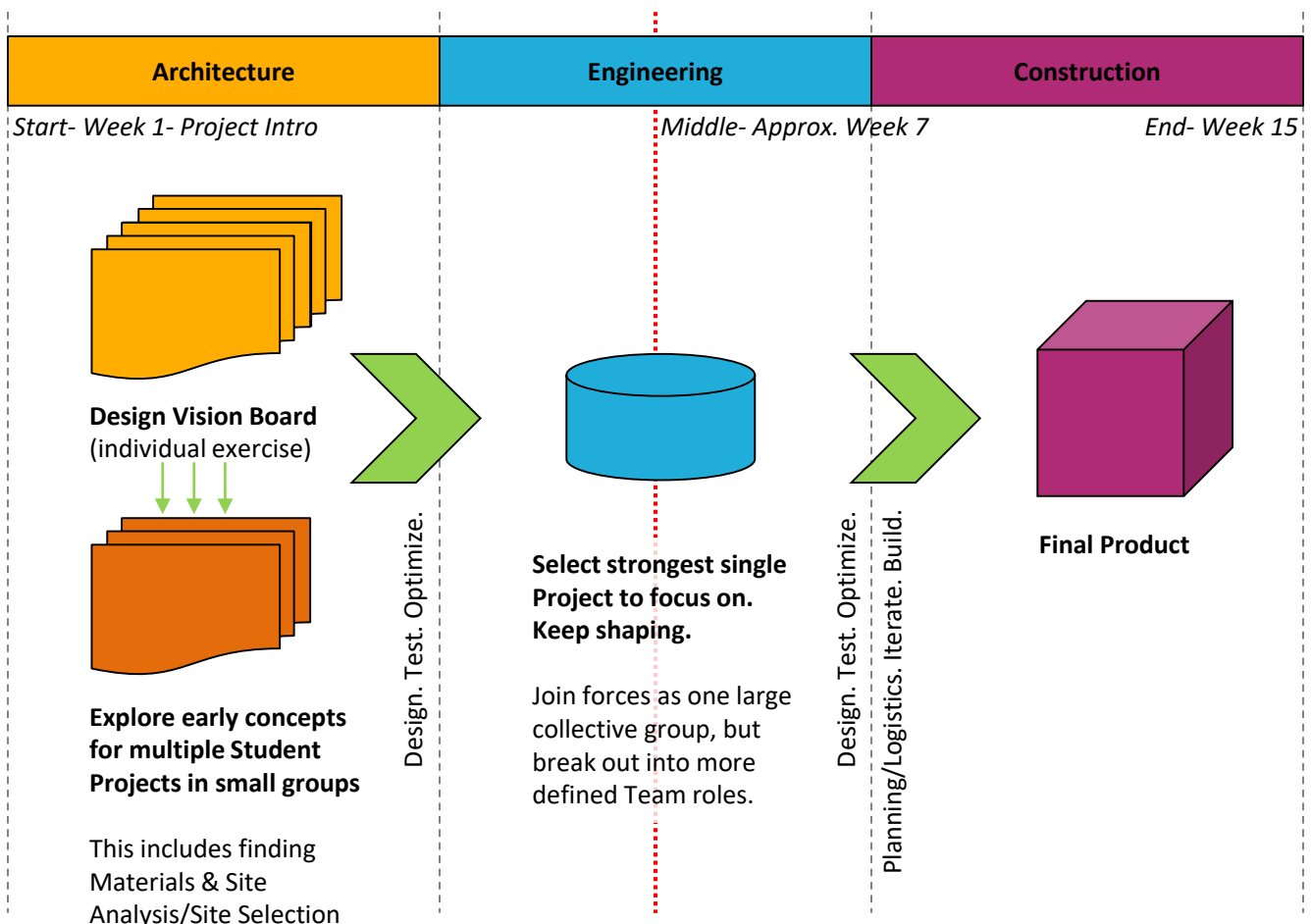
The 2019 ACE Mentor Schedule is subject to change based on inclement weather, etc., but below is the general outline that each group will follow on a weekly basis in order to complete the Student Project in time for the end of year ACE Awards Banquet presentations. Note this is based on the traditional AEC Curriculum (design/project management) track vs. the Skilled Trades track. New to ACE Atlanta this year we are adding a more “**Design + Build Studio**” integrated focus as reflected in the activities below. Please talk with your lead mentor if you have any specific questions. The [Project Milestones](#) page defines the process in more detail.

	Dates (Day of week varies per location)	Week	Session Topic & Activities – “Design + Build Studio”
Jan	1/7 – 1/11	ACE week 1	Icebreaker Community Planning Intro <b>Project Milestone:</b> Project Introduction & Selection ( <i>start w/ groups of 3+</i> ) Design Inspiration / Vision Boards ( <i>start individually</i> )
	1/14 – 1/18	ACE week 2	<b>Field Trip #1 (Architecture)</b> - Site Analysis OR Materials Day (OR College / ACE Alumni Day) <b>Project Milestone:</b> Find Materials / Select Final Site ( <i>work in groups*</i> )
	1/21 – 1/25	ACE week 3	Preconstruction 1- Cost Estimate / Materials
	1/28 – 2/1	ACE week 4	Sketching
Feb	2/4 – 2/8	ACE week 5	Design Programming / Narrative Scaled Drawings / Drafting 2D Plans
	2/11 – 2/15	ACE week 6	Handmade Scale Models- Part 1
	2/18 – 2/22	<b>Winter Break</b>	<b>No session</b>
	2/25 – 3/1	ACE week 7	Handmade Scale Models- Part 2 Preconstruction 2- Scheduling / Planning / Logistics <b>Project Milestone:</b> Select strongest project to collectively work on after the Design & Engineering aspects have been tested and optimized. Define Team Roles & Responsibilities.
Mar	3/4 – 3/8	ACE week 8	<b>Field Trip #2 (Engineering)</b> - Fab Shop Tour
	3/11 – 3/15	ACE week 9	BIM / VDC - 3D Models (Computer Lab)
	3/18 – 3/22	ACE week 10	Prototyping / Mock-Ups- Part 1 (Workshop / Site)
	3/25 – 3/29	ACE week 11	Prototyping / Mock-Ups- Part 2 (Workshop / Site)
Apr	4/1 – 4/5	<b>Spring Break</b>	<b>No session</b>
	4/8 – 4/12	ACE week 12	Construction- Framing / Rough-In (Workshop / Site)
	4/15 – 4/19	ACE week 13	<b>Field Trip #3 (Construction)</b> - Active Jobsite Visit- Site TBD by each lead mentor
May	4/22 – 4/26	ACE week 14	Construction- Finishes
	4/29 – 5/3	ACE week 15	Final Project & Presentation Prep
	5/6 – 5/10	ACE Banquet	Group Presentations; Location To Be Finalized
	5/13 – 5/17		
	5/20 – 5/24	Last Week of School	
	5/27 – 5/31		

# Project Milestones

Note that group sizes may need to vary depending on the number of students at each ACE location. As for **Project Milestones**, it is recommended to start out working in multiple, smaller groups at the beginning of the program, except for the Design Vision Boards exercise where individual work is encouraged. Those ideas can be combined with others', the idea being that the best ones gel to make up one cohesive major design move per project. It's recommended at around Week 7 (the halfway point and after Winter Break) to collectively decide on the strongest project to pursue for the remainder of the program term- that way adequate time, resources, and manpower can be committed to finishing. At this point it is key to define [Team Roles](#) to divide and conquer tasks and have stronger communication throughout the process.

## Project Milestones Diagram



# Project Final Deliverables

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## ACE Final Project Deliverables

The following 11 items are the expected final deliverables to have completed and ready for the final project presentations. It is best to divide and conquer tasks between team members. Use the next page to identify [Team Roles & Responsibilities](#). It is also best to complete these along the way, in other words, from week to week and make small tweaks at the end, rather than waiting until the very end to pull everything together.

- 1- Problem Statement / Design Narrative (include team bio) (1 pg.)
- 2- Design Vision Board
- 3- Process Sketches
- 4- Hand-made Physical Scale Model
- 5- 3D BIM Model- SketchUp is recommended, but any BIM based software is allowed
- 6- Final IFC Construction Document Plan Set for Contractor Use
- 7- Conceptual Estimate- Budget
- 8- Construction Schedule
- 9- Bill of Materials- Final Cost / Materials List
- 10- Final Presentation- Team, Handouts, Graphics, Process / Finish Photos
- 11- Final Built Structure- Signoff on-site / Handoff to end users