

ACE MENTOR PROGRAM OF GREATER NY

*2023-2024 Guide to Starting
an ACE GNY Team*



OVERVIEW

The mission of the ACE Mentor Program is to engage, excite and enlighten high school students to pursue careers in architecture, construction management, and engineering through mentoring and to support their continued advancement in the industry.

Mentors are vital to implementing the programmatic mission of ACE GNY. While serving as professional role models and helping students learn about the integrated construction industry through informal presentations, office visits, and site tours, mentors guide their students through hands-on activities and the development of a team design project.

Mentors who participate in ACE GNY gain an altruistic sense of "giving back", the gratification that comes with sharing knowledge and wisdom with eager students. In addition, mentoring presents a variety of networking opportunities, as well as chances to sharpen individual presentation, leadership, and other professional skills.

TEAM STRUCTURE

Teams are comprised of 25-30 high school students, ranging in grade level and background familiarity of the field. Teams are led by 10-15 mentors from different firms and industries.

Each team must have representation of Architects, Civil/Structural Engineers, Mechanical/Electrical/Plumbing Engineers, and Construction Managers. Teams are led by a Team Leader, who develops a lesson plan for the season and works with mentors to create a supportive learning environment for students.

Often, team leaders ask members of a design team they are working with on a real project to mentor/staff the team. If you need help filling a discipline, please contact our staff.

Teams meet from early November through May, meeting once weekly or bi-weekly for 1-2 hours. ACE GNY operates on the New York City Department of Education school calendar.

RESPONSIBILITIES OF MENTORS

Admin/Logistics

- All mentors must complete a full criminal background check (paid for by ACE GNY) every three years in order to mentor.
- All mentors are required to register on the ACE GNY website (acementorny.org) each program year and participate in the online mentor training.

Time Commitment

- Meeting Time: 1-2 hours every week from November to May.
- Prep Time: Preparation between meetings varies and involves sending meeting reminders; preparing lesson plans; gathering supplies; and convening a pre-meeting or conference call with all the team mentors.

Mentor Tasks and Activities

- Engage students in hands-on activities as part of the mentor team or as a leader of the activity.
- Present engaging industry overviews.
- Work collaboratively with other mentors to demonstrate how the different industry disciplines must integrate to design and build a project.
- Guide the students through the design and development of a team project.
- Conduct a virtual office tour or construction site tour.
- Advise students about college, requirements for entering ACE fields, and career options.
- Help students apply for ACE GNY scholarships and write recommendations.

Mentor Resources

- Pre-recorded introductory resources that cover the core ACE GNY disciplines.
- Monthly ACE GNY Newsletters.
- Webinars and online mentor trainings.
- Professional development events for all mentors.
- Annual summer ACE GNY mentor appreciation event (Mentor Summer Social).
- Mentor community of over 600 individuals to network with.
- ACE GNY Staff support throughout the season.

PROGRAM CHECKLIST:

WHAT CONTENT TO SHARE WITH STUDENTS

Core Discipline	Basic Topics	Advanced Topics (Not Required)
Architecture	Floor Plan Exterior and Interior Elevations Reflected Ceiling Plan	Interior – Finishes/ Furnishings Building Sections / Wall Sections Visualizations (3D Axons, Renderings, Animations, Models) Site plan
Civil Engineering	Plans and Profiles Roadway Geometric Design Grading and Drainage Utility Coordination Traffic Analysis Foundation/Geotechnical Design	Drainage Pipe Sizing (Storm and Sanitary) Water Supply Design Support of Excavation
Structural Engineering	Loads, Materials, Load Path	Framing Plans (Beams, Columns) Lateral System
Note: For MEP, Choose 2 of the 4 disciplines		
Mechanical Engineering	Ventilation Calculations Air Riser Diagrams Recommendations for Mechanical Systems	Duct Layout System Sizing and Selection
Electrical Engineering	Recommendations for Electrical Systems Equipment and Locations	Calculations Supporting Equipment Sizing
Plumbing Engineering	Sprinkler Diagram Identifying fixers Floorplan Layout	Pipe Sizing Equipment Sizing and Selection
Fire Protection Engineering	Sprinkler Diagram Identifying fixers Floorplan Layout	Pipe Sizing Equipment Sizing and Selection
Construction Management	Basic Construction Schedule/Logistics	Advanced Schedule Cost Analysis
Optional Disciplines	Basic Topics	Advanced Topics (Not Required)
Acoustical	Guidelines/Recommendations	Materials, Panel Mockup
Audio Visual/IT/Security	Project Development	
Environmental Engineering	Wastewater Management Plan	
Envelope	Wall Material Type of System	Compliance with Technical Performance
Landscape	Sitework Design	
Sustainable Engineering	LEED/WELL Checklist	Net Zero

IMPACT OF MENTORSHIP

"ACE GNY taught me many real world situations that high school does not truly prepare you for... **Being able to join my mentors as they teach us how they go about their careers and how they work day to day is an experience that is unmatched.**"

- Alumni

"ACE has been a great experience. Not only are we helping young students understand our industry and getting them excited about engineering, **I myself find that I have learned a lot from our other very skilled mentors.**"

- Mentor

"This program made me realize that I could actually have a career in either architecture or design. **Before this I didn't know anyone who had a job that I was interested in like this.** My mentors opened up my mind to many different opportunities and I'm so happy that I'm a part of it."

- Alumni

"I believe that ACE is one of the most important--if not THE most important--organizations for promoting the importance of career development in the construction industry..."

Mentoring has allowed me to, in a "hands on" way, contribute to the continuing effort to build a pool of talent that is essential to the success of our industry as we move forward."

- Mentor

2022-23 PROGRAM STATS

1,500+ Student Participants

*Engaged from over 320 high schools in New York City,
Long Island, Westchester, and Rockland County.*

600+ Mentors

*Registered from over 130 architecture, engineering,
and construction management firms.*

45 Teams

*Each team consists of a mix of mentors from across the
design and construction industry and 25-30 students.*

\$150,000+ in Scholarships

*Awarded yearly to graduating seniors to pursue a
college pathway in design and construction.*

LEARN MORE

ACE GNY Staff are happy to speak with you and your firm about getting involved in mentorship.

Contact us at the information below to get started!

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Executive Director

Email: GreaterNY@acementor.org

Phone: 646-757-5829

www.acementorny.org

