

**Manhattanville in West Harlem Implementation Plan Report
October 16, 2017 Submission**

Declaration Reference and Key Data

Obligation Section Number: **5.07(c)(xi)**

Obligation Title: **Youth Internships**

Obligation Page Number: **55**

Obligation Trigger: **2010**

Obligation Start Date: **Summer 2010**

Obligation End Date: **2025**

Obligation Status: **In Compliance**

Obligation

Youth Internships. Commencing in 2010, CU shall create a pilot program for up to 15 summer internships per year for high school students with one-third selected from the local community and two-thirds from the upper level students at the School to support academic and research interests of students. The program shall begin with five students from the local community and add 10 students from the new School when students reach the upper grades and qualify for such an internship. The internships shall initially take place in CU's existing facilities and shall move to the new Academic and Academic Research buildings proposed within the Project Site when constructed. After five years the program shall be reviewed by leadership of the School and CU with the intent of modifying, extending the size and/or renewing the program upon mutual agreement.

*Following the summer 2014 internship program, CU met with the principal of the school and developed the modifications described below.

Five Year Review and Modifications:

Following the initial five years and in coordination with the School's leadership, CU has modified the internship program to focus on at least one aspect of Science, Technology, Engineering, Environment, Arts and/or Math (STEAM) and basic office etiquette. Working with various units within the University, the modified internship program will include the following adaptations:

New Title: Youth Internships

Timeframe: No longer limited to summer weeks.

Program Duration: Varies. Internships can range from 4 weeks to 9 months depending upon the specific program.

Number of Interns: No fewer than 15 internships comprised of CSS students and/or local community students.

Internship Locations: Within Columbia University offices and laboratories

Program Description: CU shall provide no fewer than 15 high school students attending the Columbia Secondary School for Math, Science and Engineering and/or living within the Local Area an opportunity to participate in one of several youth internship programs operated by Columbia University focusing on math, science, engineering and/or the environment/sustainability. Internship programs vary and are managed by departments, schools and other offices within the University. The internships will be located on the University's campuses.

At the end of 2018, the Internship Program will be reviewed in consultation with ESD with the intent of modifying and/or renewing the program.

Evidence of Compliance

1. Annual report

Columbia University's Implementation Plan and all supporting documentation are made available on the Community Services Webpage at <http://manhattanville.columbia.edu/community/benefits-and-amenities>.

Manhattanville in West Harlem Implementation Plan Report

October 16, 2017 Submission

EOC Checklist for Obligation 5.07(c)(xi):

Please check to verify EOC items submitted for review.

- ☐ 1. Annual report

Monitor's Notes / Comments:

[illegible]

Status:

Please check to indicate the status of Obligation 5.07(c)(xi):

- ☐ In Compliance
- ☐ In Progress
- ☐ Not In Compliance
- ☐ Not Triggered

Annual Report: Youth Internships

State Submission Annual Reporting Period: **October 2016 - September 2017**

Columbia University offers a variety of internship programs that help local youth gain valuable work experience:

Brain Research Apprenticeships in New York at Columbia (BRAINYAC) is a program that pairs high school students with scientists for intensive lab apprenticeships. This Zuckerman Institute program is an immersive science research experience in which Zuckerman Institute scientists open their doors to high school students, who in turn bring their talents and perspectives to the lab. Started in 2013, BRAINYAC pairs students with scientists who mentor them throughout seven weeks of intensive summer research. The program prepares students for laboratory research through training sessions, which run from January through May, followed by the seven-week period of intensive research during the summer. Upon completing the program, students come away with an increased understanding of how research in the lab leads to transformative discoveries. Eligible sophomores and juniors are drawn from select youth-serving programs: the Lang Youth Medical Program at New York-Presbyterian Hospital; the State Pre-college Enrichment Program run by Columbia University Medical Center; the Double Discovery Center; and the Columbia Secondary School for Math, Science and Engineering. BRAINYAC receives generous support from the Pinkerton Foundation and the Stavros Niarchos Foundation.

The Columbia University Facilities and Operations (CUFO) High School Summer Internship Program is a structured, six-week initiative that provides students with practical work experience before graduation. The program was started in 2011 and is run by the Columbia University Department of Facilities and Operations for high schoolers that live in the 17 local zip code area. Local refers to those students whose primary residence is located within one of the following 17 zip codes: 10025, 10026, 10027, 10029, 10030, 10031, 10032, 10033, 10034, 10035, 10037, 10039, 10040, 10455, 10451, 10454, 10474.

Engineering the Next Generation (ENG) is a program for high school students interested in engineering. ENG is an opportunity for motivated high school students from local partner schools to participate in a six-week intensive research program that includes both lab work and supplemental programming to develop their academic and professional skills. Students gain practical research experience, exposure to lab culture, new skills and multi-level mentorship. Program components include working with Engineering faculty, hands-on research skills and experience, master class, poster symposium presentation, college letter of recommendation, and the possibilities of ongoing research and publication in the Columbia Undergraduate Science Journal.

Program	# of Local Students	# of CSS Students	Total
BRAINYAC	8	4	12
CUFO	8	1	9
ENG	2	5	7
TOTAL:	18	10	28

Contents of Report

- BRAINYAC Annual Report
- BRAINYAC Brochure
- BRAINYAC Partner Program Recruitment Letter
- BRAINYAC Information Session Invitation
- BRAINYAC 2017 Application Packet
- BRAINYAC 2017 Poster Presentation Program
- Columbia University Facilities and Operations (CUFO) Summer Internship Annual Report
- Columbia University Facilities and Operations (CUFO) Summer Internship Flyer
- Columbia University Facilities and Operations (CUFO) Summer Internship Application
- Columbia University Facilities and Operations (CUFO) Summer Internship Friday Schedule
- Engineering the Next Generation (ENG) Annual Report
- Engineering the Next Generation (ENG) Outreach and Application Process
- Engineering the Next Generation (ENG) 2017 Application Packet

Annual Report: Youth Internships - BRAINYAC

State Submission Annual Reporting Period: **October 2016 - September 2017**

- Information Session Date: **September 24, 2016**
- Application Deadline: **October 12, 2016**

Following the initial five year Summer Internship Program and in coordination with Columbia Secondary School's leadership, CU modified the internship program to provide a more selective internship to focus on at least one aspect of Science, Technology, Engineering, Environment, Arts and/or Math (STEAM).

The BRAINYAC program (Brain Research Apprenticeships In New York At Columbia) admits students with a stated interest in biomedical and specifically neuroscience research and provides immersive science research experience with Zuckerman Institute scientists. The program prepares students for laboratory research through training sessions, which run from January through May, followed by a 7-week period of intensive research during the summer. Upon completing the program, students come away with an increased understanding of how research in the lab leads to transformative discoveries. The program admits from four partner programs; Lang Youth Medical Program, State Pre-College Enrichment Program (S-PREP), Columbia Secondary School and the Double Discovery Center. Participants must be at least 16 years of age in order to participate and are granted a stipend for their time in the program.

	Intern Name	Zip Code	High School
1.		10031	Health Opportunities High School
2.		10031	Columbia Secondary School
3.		10034	High School for Math, Science, and Engineering @ City College
4.		10040	The Beacon School
5.		10039	Columbia Secondary School
6.		10032	The Beacon School
7.		10033	Elisabeth Irwin School
8.		10034	The Calhoun School
9.		10029	Manhattan Center for Math and Science
10.		10033	High school for language and diplomacy
11.		10069	Columbia Secondary School
12.		10468	Columbia Secondary School

Additional Supporting Documentation

- BRAINYAC Brochure
- BRAINYAC Partner Program Recruitment Letter
- BRAINYAC Information Session Invitation
- BRAINYAC 2017 Application Packet
- BRAINYAC 2017 Poster Presentation Program

The Zuckerman Institute's BRAINYAC (Brain Research Apprenticeships in New York at Columbia) program is an immersive science research experience in which high school students train and work in neuroscience laboratories at Columbia University. The program runs every year from January through August. This includes weekend training sessions in the winter and spring and a full-time internship during the summer.

BRAINYAC

This special staining technique reveals how different types of neurons may be altered in schizophrenia.
From the laboratory of Dr. Joseph Gogos

APPLICANTS FOR BRAINYAC PROGRAM:

- are genuinely interested in the biomedical sciences;
- demonstrate the maturity needed to work in a sophisticated high-tech lab environment; and
- are willing to commit to the entire program.

Applications are distributed to partner programs and schools in the fall before the program starts in January. Priority is given to students residing in northern Manhattan and the South Bronx.




BRAINYAC STUDENTS:

- are introduced to an academic scientific research environment;
- develop laboratory and technical skills;
- boost their understanding of science as it is practiced; and
- build their communication and presentation skills.

VISIT US ONLINE:

 zuckermaninstitute.columbia.edu

 [@zuckermanbrain](https://twitter.com/zuckermanbrain)

 [zuckermaninstitute](https://www.facebook.com/zuckermaninstitute)

FUNDING PROVIDED BY:

The Pinkerton Foundation

ΙΣΝ / SNF

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Mortimer B. Zuckerman Mind Brain Behavior Institute

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BRAINYAC

Brain Research Apprenticeships In New York At Columbia

The Zuckerman Institute's BRAINYAC program matches high school students with brain scientists for an immersive laboratory internship

WHAT'S INVOLVED

The BRAINYAC program runs each year from January through August. The first portion, from January to May, is comprised of Saturday morning training sessions, generally twice per month. During these sessions, students are prepared for their summer laboratory internship. Training sessions cover basic lab techniques, the essentials of neuroscience and how a lab works. During this time, each student is matched with a neuroscientist at Columbia University who will become the student's mentor for the summer portion of the program.

Starting in late June or early July, students commence the laboratory portion of the program. They work in their internship labs full-time, Monday through Friday, taking part in a research project and are guided by their mentor. Depending on the lab and

BRAINYAC

the project, a student might employ techniques such as microscopy, cell culture, functional imaging analysis and computer modeling.

Students join weekly BRAINYAC advisory sessions throughout their summer. The advisory sessions focus on supporting the students' progress in the labs and advancing their science communication skills.

Students who successfully complete the program receive a stipend that is paid in two installments.

STUDENT ELIGIBILITY

The BRAINYAC program admits students from select BRAINYAC partner programs and schools in upper Manhattan. Students commit to the entirety of the program from January through August.

APPLICANTS MUST BE:

- sophomores or juniors in high school at the time of application;
- 16 years of age or older by the start of the summer session; and
- enrolled in one of our partner programs: Lang Youth Medical Program; State Pre-College Enrichment Program (S-PREP); Double Discovery Center at Columbia College; or the Columbia Secondary School for Math, Science, & Engineering. (See the Zuckerman Institute website for a complete and updated list.)

OUTCOMES

At the end of the program in mid-August students present their research to a diverse audience—friends, family, researchers, mentors and the broader Columbia community—during a poster presentation.

Students come away from the program with an enhanced understanding of how lab research can lead to transformative discoveries, exposure to a professional and academic environment and a heightened connection to science as a career.





BRAINYAC 2017 Recruitment

Wed, Sep 7, 2016 at 1:21 PM

Bcc: [REDACTED]

Dear Distinguished partners,

I hope you are enjoying what's left of the summer.

Following the completion of another successful BRAINYAC program session, we are currently working on the recruitment strategies for next year.

Attached is the tentative schedule for BRAINYAC 2017. We hope that the spring sessions will run select Saturdays, indicated in the attached schedule (from January through April) at 9:30am each day.

We will also like to meet with your students for a recruitment information session on September 24th 2016 from 1:15pm – 2:30pm. During this session, I will share details about the program, including the application process.

We also would also love if you could nominate one of your students who participated in the BRAINYAC program to attend the information session and share their experience in the program with the prospective applicants.

Please feel free to contact me if you have any questions. Thank you for your time.

Best regards,

[REDACTED]

[REDACTED]
Education Program Manager

Mortimer B. Zuckerman Mind Brain Behavior Institute

Columbia University

Studebaker Building

615 West 131st Street, New York NY 10027

Phone: [REDACTED]

Email: [REDACTED]

<http://zuckermaninstitute.columbia.edu>

<http://zuckermaninstitute.columbia.edu/zuckerman-institute-public-programs>



BRAINYAC Program Schedule 2017 UPDATED (Partner Copy).pdf

85K

Invitation to attend

BRAINYAC Program

Information Session
Saturday, September 24, 2016
1:15pm to 2:30pm

Hammer Building
701 W 168th Street,
Room LL106,
New York, NY 10032



BRAINYAC Program Application Form 2017

Q1 Welcome to the online application for Brain Research Apprenticeships in New York at Columbia (BRAINYAC). This application consists of multiple parts: personal information, parent/guardian information, education, short answer questions, essay questions, personal statement, and interview availability. We recommend that you compose your answers to the short answer and essay questions before beginning the application. You will be able to copy and paste your answers into the boxes provided. By applying to the program, you commit that you will: attend all program sessions and be accompanied by a parent or guardian to the parent-student orientation on January 7, 2017 from 1:15 pm to 3:15 pm. Short answer questions: Describe any extracurricular activities (organizations, athletics, student government, etc.) in which you have participated. Include community service, if applicable. What kind of laboratory experience do you have (in school or extracurricular) (No previous lab experience outside of the typical high school classes is necessary for this program.) Essay questions: Describe what makes you a good candidate for the BRAINYAC program. What interests you about the brain and neuroscience? (Max 300 words) How would being in the BRAINYAC program help your education and career goals? (Max 200 words) Personal statement: Write an essay (650 words or fewer) that demonstrates your ability to develop and communicate your thoughts. Some ideas include: a person you admire; a life changing experience; your viewpoint on a particular current event or an insight to who you are. Please direct any questions to [REDACTED]

Q2 First Name

Q3 Middle Name

Q4 Last Name

Q5 Which of the BRAINYAC partner programs or school are you enrolled in? (If are you not currently enrolled in any of these programs, you are ineligible to apply for BRAINYAC)

- ☐ Lang Youth Program (1)
- ☐ S-PREP (2)
- ☐ Double Discovery Center (3)
- ☐ Columbia Secondary School for Science Math & Engineering (4)

Q6 Mailing Address Line 1 (Number, Street, Apt. #)

Q7 Mailing Address Line 2 (City, State)

Q8 Zip Code

Q9 Cellphone Number (If available)

Q10 Email Address

Q11 Re-type email address

Q12 Gender

- ☐ Male (1)
- ☐ Female (2)

Q37 Date of Birth

Q13 Will you be 16 years of age on or before June 30, 2017?(If you have not turned 16 years old by the start of the lab portion of BRAINYAC, you are ineligible to apply.)

- ☐ Yes (1)
- ☐ No (2)

Q16 Parent/ Guardian name (First and Last)

Q17 Parent/ Guardian Email Address

Q20 Home Telephone Number

Q18 Additional Parent/ Guardian Name (Optional)

Q19 Additional Parent/ Guardian Email Address (Optional)

Q23 Name of high school

Q24 Address of high school (Street number, street name, City, State, and zip code)

Q25 Current grade in school

- ☐ 10th grade (1)
- ☐ 11th grade (2)

Q28 Describe any extracurricular activities (organizations, athletics, student government, etc.) in which you have participated. Include community service, if applicable.

Q29 What kind of laboratory experience do you have (in school or extracurricular)(No previous lab experience outside of the typical high school classes is necessary for this program.)

Q31 Describe what makes you a good candidate for the BRAINYAC program. What interests you about the brain and neuroscience? (Max 300 words)

Q32 How would being in BRAINYAC program help your career goals? (Max 200 words)

Q36 Write an essay that demonstrates your ability to develop and communicate your thoughts. Some ideas include: a person you admire; a life changing experience; your viewpoint on a particular current event or an insight to who you are. (650 words or fewer)

Q38 We will be conducting interviews on the following days and times. Please indicate your availability on at least 3 separate dates, selecting as many time slots possible on each day. Interviews will be approximately 20 minutes and be conducted at Columbia University (Studebaker Building, 615 131st Street, New York). Further details will be provided to applicants invited to interview. Due to on going constructions, please enter the building at 622 132nd Street entrance. Please hold dates you indicate below on your calendar until the week of November 24, 2015 when we will confirm your interview date.

	3:00PM to 3:30PM (1)	3:30PM to 4:00PM (2)	4:00PM to 4:30PM (3)	4:30PM to 5:00PM (4)
Monday October 17 (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tuesday October 18 (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Wednesday October 19 (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Thursday October 20 (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Friday October 21 (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Monday October 24 (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tuesday October 25 (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Wednesday October 27 (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Thursday October 28 (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q26 Do you commit to attending the BRAINYAC training sessions from 9:30 to 11:30 am on the following Saturdays? January 14, February 4, February 18, February 25, March 11, April 1, April 22, May 6, May 13, and May 20?

- ☐ Yes (1)
- ☐ No (2)

Q37 Do you commit to attending a campus tour from 10am to 2pm on (Chancellor's Day)
Thursday June 8, 2017

- ☐ Yes (1)
- ☐ Maybe (2)
- ☐ No (3)

Q40 Does your parent/ guardian commit to attend the parent-student orientation on January 7, 2017 from 1:15pm to 3:15pm?

- ☐ Yes (1)
- ☐ No (2)

Q27 Do you commit to participating in a scientific research laboratory internship and BRAINYAC advisory sessions from June 30 to August 18, 2017?

- ☐ Yes (1)
- ☐ No (2)

Q41 The information submitted above is true and correct to the best of my knowledge.

- ☐ I agree (1)
- ☐ I disagree (2)

Q34 I hereby submit my application to BRAINYAC program. (Name, date)

Q39 Contact Information: [REDACTED] Mortimer B. Zuckerman Mind Brain Behavior
Institute 615 West 131st Street, 6th Floor New York, NY 10027 Phone: [REDACTED] Email:
[REDACTED]

Special thanks to the:

Principal Investigators and Mentors

[Redacted names]

[Redacted names]

For more information

Email: publicprograms@zi.columbia.edu **Phone:** 212.851.9612

Funding provided by:

The Pinkerton Foundation

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We Enable Science



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MORTIMER B. ZUCKERMAN MIND BRAIN BEHAVIOR INSTITUTE

**BRAINYAC Research Poster
Presentation & Reception**

**Celebrating achievements of the
2017 BRAINYAC graduates**

at

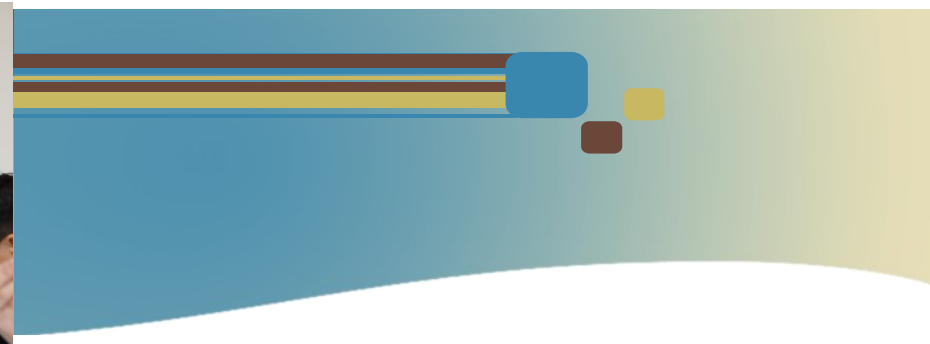
Greene Science Center
Education Lab and Building Lobby
3227 Broadway, New York

Thursday, August 17, 2017
2:00pm to 4:00pm



BRAINYAC 2017 graduates

The Zuckerman Institute's BRAINYAC program matches high school students with brain scientists for an immersive laboratory internship.



PROGRAM Agenda

2:00 pm	Guest arrival
	Opening remarks
	Mentor appreciation
	Presentation of certificates
3:00—4:00 pm	Refreshments and research poster presentations
4:00 pm	Departure

A Note of Thanks

The Zuckerman Institute extends a sincere thank you to everyone who joined us here today to celebrate the achievements of the BRAINYAC class of 2017.

We owe a huge thank you to the principal investigators and mentors for opening their labs and mentoring the next generation of scientists. This program wouldn't be possible without their dedication and commitment.

We would also like to acknowledge our funders, the Pinkerton Foundation, the Stavros Niarchos Foundation and the VWR Foundation for their generous support.

We thank all the parents and guardians for their support throughout the program. We are also grateful to the BRAINYAC Alumni Interns for returning to share their experiences and skills.

And finally, a very big congratulations to the BRAINYAC class of 2017 for successfully completing the program. We wish for your continued success through high school and in the next steps of your education and career trajectory.

BRAINYAC Students and Research Projects

	Understanding the role of octopaminergic cell circuits in locomotive behavior
	Creating Snakehead rhabdovirus (SHRV) for monosynaptic tracing in electric fish
	A novel approach to understand autistic behaviors using computational models
	A tool to analyze mitochondrial dynamics
	Fate-specifying signals within the Drosophila ommatidium
	Experimental design and creation of smart branch to understand the hippocampus of the Chickadee bird
	A theory for understanding the mysteries of autistic behaviors
	Role of Epas1 transcription factor in Amyotrophic Lateral Sclerosis
	Stress and the reward system: Neural activity in the Ventral
	Do differences in caregiving quality affect parent-child biological synchrony?
	Molecular cloning of Stasimon: A novel protein involved in Spinal Muscular Atrophy
	Modeling Gnb1 \mutations in mice to find treatments for patients with neurodevelopmental disorder
	Exploring the brain's GPS through data analysis
	Extinction of contextual fear: Identification of ventral CA3 memory traces
	How ATF5 affects gene expression in olfactory neurons
	Classification and identification of neural projections important for value during learning

Annual Report: Youth Internships - Columbia University Facilities and Operations

State Submission Annual Reporting Period: **October 2016 - September 2017**

- Application Deadline: **June 2, 2017**

The Columbia University Facilities and Operations Summer Internship Program is a 6-week long paid internship for high school students living in the local* community who are looking to gain real work experience before graduation. Previous work experience is a plus, but is not required. Interns must be at least 16 years old at the time of the internship and are paid New York State minimum wage.

This summer, the program began on July 10, 2017 and ended on August 18, 2017. Interns were placed in one of the following Facilities and Operations departments: Manhattanville Development Group, Finance and Administration, Planning and Capital Project Management, or Strategic Communications and Construction Business Initiatives. Interns worked in their respective departments from Monday - Thursday and met as a group every Friday for special tours, workshops, and skills training.

* Local refers to those students whose primary resident is located within one of the following 17 zip codes: 10025, 10026, 10027, 10029, 10030, 10031, 10032, 10033, 10034, 10035, 10037, 10039, 10040, 10455, 10451, 10454, 10474.

	Intern Name	Zip Code	High School
1.		10031	Manhattan Center for Science and Mathematics
2.		10033	Yeshiva University High School for Boys
3.		10027	The Hewitt School
4.		10032	High School of Art and Design
5.		10029	Manhattan Center for Science and Mathematics
6.		10031	Milton Academy
7.		10037	The Urban Assembly of Young Women's Business Academy
8.		10037	The Urban Assembly of Young Women's Business Academy
9.		10033	Columbia Secondary School for Math, Science and Engineering

Additional Supporting Documentation

- Columbia University Facilities and Operations Summer Internship Flyer
- Columbia University Facilities and Operations Summer Internship Application
- Columbia University Facilities and Operations Summer Internship Friday Schedule



COLUMBIA UNIVERSITY

Facilities and Operations

Summer 2017 High School Internships

Columbia University Facilities and Operations provides a wide range of services to the University community including planning, design, construction management and operations.

This summer we are offering paid internships for high school students living in the local* community looking to gain real work experience before graduation. Previous work experience is a plus, but not required. The paid internships begin on July 10, 2017 and end on August 18, 2017. Applicants must be 16 years old at the time of the start of the internship and will need working papers. Interns will be paid New York State minimum wage.

Manhattanville Development Group

Project Management Intern:

- Perform architecture/design related tasks, including compiling data and preparing drawings for distribution; assisting in compiling architectural plans; assist in conducting preliminary studies to obtain information as to space and design requirements; research and information gathering for use in various projects.
 - Work closely with Project Management team on various task lists, construction updates and construction reports
 - Learn how to conduct effective meetings with clients and contractors and document the meeting with formal minutes
 - Assist with filing, organizing and cataloging project documents
-

Finance and Administration

Helpdesk Support Intern:

- Learn how to identify, research, and resolve technical problems
- Respond to telephone calls, email and personnel requests for technical support
- Learn how to document, track and monitor all problems to ensure a timely resolution
- Assist in the installation and configuration of workstations based on needs and requirements

Human Resources Intern:

- Gather information/data on employee engagement
- Organize large database of files
- Attend all team training, meetings, and presentations

Capital Finance Intern:

- Review capital construction capital project documents and high level financial information in order to compile an Excel database of key information from each document
 - Learn to use key financial Excel tools to prepare financial summaries geared toward upper management, clients and project management groups
 - Prepare a summary of historical capital project contingency usage by category
 - Compile historical project expenses by trade into a benchmarking database
-

Planning and Capital Project Management

Design and Compliance/Capital Project Management Intern:

- Create directory of plan room files
- Scan and file operations drawings
- Organize compliance binders and progress photos
- Attend meetings with a Project Manager, take notes, record attendance

Planning Intern:

- Create and organize presentation boards and photo galleries
 - Perform various document management activities
-

Strategic Communications and Construction Business Initiatives

Communication and Outreach Support Intern:

- Help design, develop and distribute effective communication materials for meetings with clients and contractors
 - Review and recommend social media strategies to reach targeted audiences
 - Track and record commitment outreach efforts to local community
 - Conduct research and assist with preparation of presentations and support client relation activities
 - Conduct daily review of vendor requests and provide administrative support for document management, expense reports and contact records
-

To apply for an internship please visit: <https://goo.gl/kXeVbf>
Deadline for Submitted Applications: June 2, 2017

For more information, please call 212-854-6938.

*Local refers to those students whose primary residence is located within one of the following 17 zip codes: 10025, 10026, 10027, 10029, 10030, 10031, 10032, 10033, 10034, 10035, 10037, 10039, 10040, 10455, 10451, 10454 and 10474.



COLUMBIA UNIVERSITY

Facilities and Operations

High School Internship Application Form

Columbia University Facilities and Operations is offering paid internships for high school students living in the local community looking to gain real work experience before graduation. Previous work experience is a plus, but is not required.

The paid internships begin on July 10, 2017 and end on August 18, 2017.

Please note that in accordance with New York State Law, all applicants must be able to provide an employment certificate (also called "working papers") before they begin work if selected for an intern position. Interns will be paid New York State minimum wage.

In order to be considered for an internship, you must submit this completed application form along with a cover letter. If you wish, you may also include a copy of your resume. You will be able to upload your cover letter and resume at the end of this application form.

Personal Information:

Name:

Street Address:

City

State

Zip Code:

Telephone Number:

E-mail Address:

Are you legally eligible to work in the United States?

☐ Yes

☐ No

If you are not a U.S. Citizen, are there any restrictions on your eligibility for employment?
Please explain:

Education:

School Name:	<input type="text"/>
School Address:	<input type="text"/>
Anticipated Graduation Date:	<input type="text"/>
Grade Point Average:	<input type="text"/>
Major:	<input type="text"/>
Career Interests:	<input type="text"/>
Please list any scholastic honors/achievements/activities:	<input type="text"/>

Work History (please include paid, volunteer, and intern positions):

Most Recent Employer:	<input type="text"/>
Location (City/State)	<input type="text"/>
Position Title	<input type="text"/>
Start Date	<input type="text"/>
End Date	<input type="text"/>
Description of Duties:	<input type="text"/>
Past Employer:	<input type="text"/>
Location (City/State):	<input type="text"/>
Supervisor (Name & Title):	<input type="text"/>
Your Position Title:	<input type="text"/>
Start Date:	<input type="text"/>
End Date:	<input type="text"/>
Description of Duties	<input type="text"/>

References (may include teachers, supervisors, family members or volunteer work leaders.)
Written references may be submitted with an application. The letter of reference should site

specific examples of the candidate's ability to successfully complete the internship if chosen.

Reference #1 Name:

Telephone Number:

Company/School:

Relationship:

Known How Long:

Reference #2 Name:

Telephone Number:

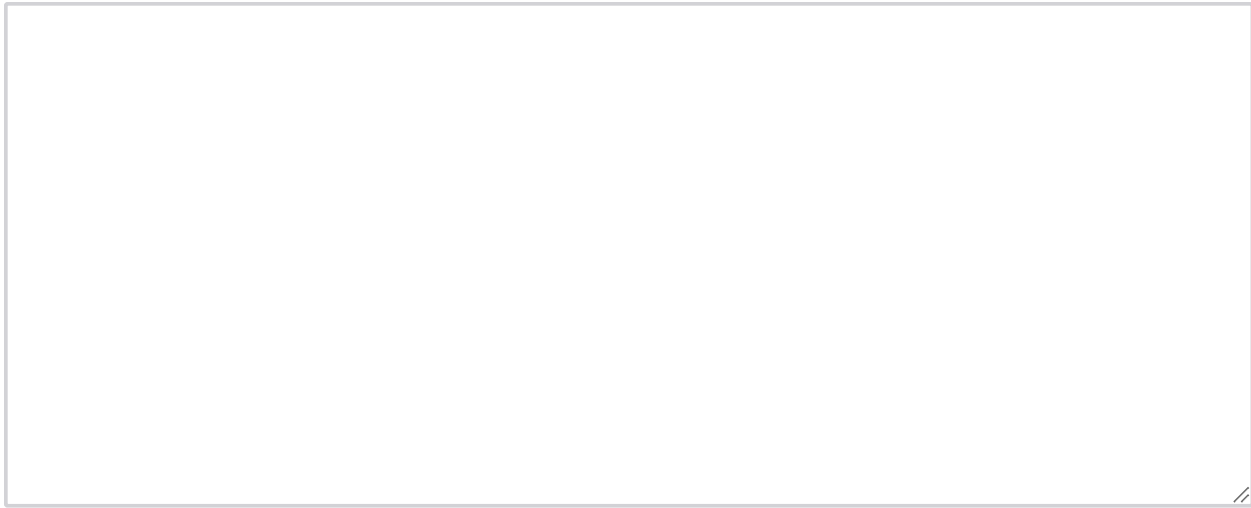
Company/School:

Relationship:

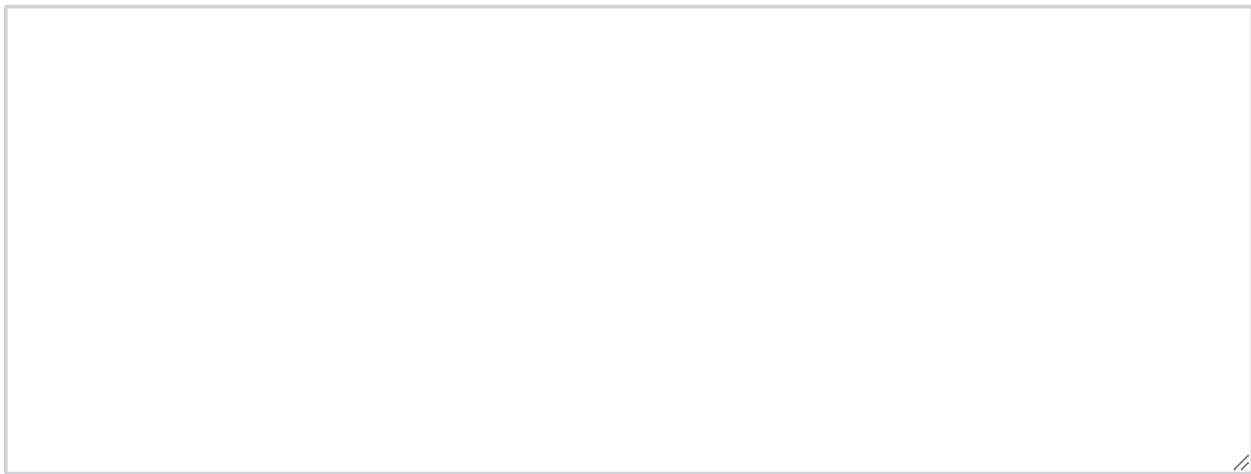
Known How Long:

Accomplishments (Community/professional organizations, honors and awards):

Accomplishments (Activities relevant to the internship for which you are applying):



Why would you like to work as an intern at Columbia University?



Please see below for descriptions of each internship position:

Department: Manhattanville Development Group

Project Management Intern:

- Perform architecture/design related tasks, including compiling data and preparing drawings for distribution; assisting in compiling architectural plans; assist in conducting preliminary studies to obtain information as to space and design requirements; research and information gathering for use in various projects.
- Work closely with Project Management team on various task lists, construction updates and construction reports
- Learn how to conduct effective meetings with clients and contractors and document the meeting with formal minutes
- Assist with filing, organizing and cataloging project documents

Department: Finance and Administration**Helpdesk Support Intern:**

- Learn how to identify, research, and resolve technical problems
- Respond to telephone calls, email and personnel requests for technical support
- Learn how to document, track and monitor all problems to ensure a timely resolution
- Assist in the installation and configuration of workstations based on needs and requirements

Human Resources Intern:

- Gather information/data on employee engagement
- Organize large database of files
- Attend all team training, meetings, and presentations

Capital Finance Intern:

- Review capital construction capital project documents and high level financial information in order to compile an Excel database of key information from each document
- Learn to use key financial Excel tools to prepare financial summaries geared toward upper management, clients and project management groups
- Prepare a summary of historical capital project contingency usage by category
- Compile historical project expenses by trade into a benchmarking database

Department: Planning and Capital Project Management**Design and Compliance/Capital Project Management Intern:**

- Create directory of plan room files
- Scan and file operations drawings
- Organize compliance binders and progress photos
- Attend meetings with a Project Manager, take notes, record attendance

Planning Intern:

- Create and organize presentation boards and photo galleries
- Perform various document management activities

Department: Strategic Communications and Construction Business Initiatives**Communication and Outreach Support Intern:**

- Help design, develop and distribute effective communication materials for meetings with clients and contractors
- Review and recommend social media strategies to reach targeted audiences
- Track and record commitment outreach efforts to local community
- Conduct research and assist with preparation of presentations and support client relation activities
- Conduct daily review of vendor requests and provide administrative support for document management, expense reports and contact records

Please select your first preference for internship position:

◀

▶

Please select your second preference for internship position:

◀

▶

How did you find out about the Columbia University Facilities and Operations High School Internship Program?

If "Other" please write in how you found out about internship program:

Please upload your cover letter.

Drop files or click here to upload

Please upload your resume.

Drop files or click here to upload

If you have a reference letter, you may upload it here.

Drop files or click here to upload

I certify that all of the statements in this application are true and complete to the best of my knowledge. Please sign below with mouse curser.

 **SIGN HERE**

clear

>>

Columbia University is an Equal Opportunity/Affirmative Action employer --Race/Gender/Disability/Veteran.

Powered by Qualtrics

Columbia University Facilities and Operations Summer Intern Friday Schedule 2017

July 14th – Public Speaking Skills and Consensus Building Activity (Lost at Sea)

July 21st –

Speakers –

- [REDACTED], Vice President, Campus Services
- [REDACTED], Assistant Vice President, University Events Management
- [REDACTED], General Manager, Ferris Booth Commons
- [REDACTED], Associate Manager, Lerner Hall Ops
- [REDACTED], Chief of Administration, Columbia Health

Behind the Scenes Tour of Lerner Hall and Faculty House

July 28th – Tour of Lamont-Doherty Earth Observatory

August 4th – Speaker – [REDACTED], Assistant Vice President, Environmental Stewardship. Interviewing Skills.

August 11th – Rehearse for final presentation

August 18th – Final Presentation

Annual Report: Youth Internships - Engineering the Next Generation

State Submission Annual Reporting Period: **October 2016 - September 2017**

- Information Session Date: **March 2 and March 31 2017**
- Application Deadline: **April 28, 2017**

Following the initial five year Summer Internship Program and in coordination with Columbia Secondary School's leadership, CU modified the internship program to provide a more selective internship to focus on at least one aspect of Science, Technology, Engineering, Environment, Arts and/or Math (STEAM).

The Engineering the Next Generation (ENG) Program is a 6-week long intensive summer program at Columbia Engineering for academically competitive high school students. Rising high school seniors are placed in engineering labs, matched with research mentors, and supervised by faculty members. Program components include research, mentoring, college preparation, presentation skills, as well as academic and professional workshops. Students are challenged with high-level academic expectations of both the researchers and undergraduate mentors. The program admits from four partner schools; Columbia Secondary School, The High School for Math, Science and Engineering (HSMSE) at the City College of New York, Marble Hill HS for International Studies, and ELLIS Preparatory Academy. Participants must be at least 16 years of age in order to participate and are granted a stipend for their time in the program.

	Intern Name	Zip Code	High School
1.		10027	Columbia Secondary School
2.		10467	HSMSE
3.		10027	Columbia Secondary School
4.		10467	HSMSE
5.		10462	Marble Hill HS for International Studies
6.		10027	Columbia Secondary School
7.		10455	ELLIS Preparatory Academy
8.		10460	ELLIS Preparatory Academy
9.		10032	Columbia Secondary School
10.		10023	Columbia Secondary School
11.		10451	ELLIS Preparatory Academy
12.		10459	ELLIS Preparatory Academy

Additional Supporting Documentation

- ENG Outreach and Application Process
- ENG 2017 Application Packet



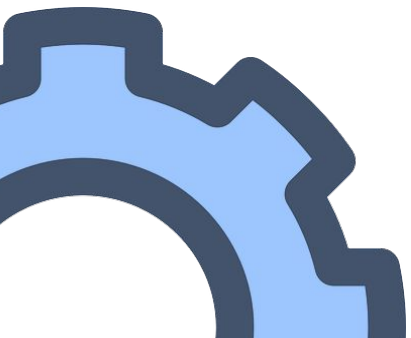
COLUMBIA | ENGINEERING

The Fu Foundation School of Engineering and Applied Science



Engineering the Next Generation

Summer Research Program





E.N.G. Program Overview

- 6-week intensive summer program
- Hands-on research experience
- Technical, academic, and personal skill building including college prep workshops
- Weekly seminars, mentoring, site visits, symposium, and more
- Final presentations
- Stipend given upon program completion





Details

- Students placed in variety of Engineering labs
 - Mechanical, Chemical, Electrical, Earth & Environmental, Industrial and Operations Research, Applied Physics and Math, etc.
- Orientation and training in lab safety and culture and mentors
 - Mentors include undergraduate and graduate students, as well as Postdocs and Professors
- Daily schedule is 9am – 5pm, Mon - Fri
 - Start day with morning workshops for ENG group
 - Days primarily spent on guided research project in labs
 - Optional lunch events with undergrad summer researchers



Expectations

- Stay Engaged
- Work with undergraduate mentors, researchers, and professors
- Follow a rigorous daily schedule
- Attend all program activities
- Maintain communication with ENG staff
- Be responsible young adults and engineers



Timeline

- Monday March 20th – Applications open
- Friday April 28th – Application Deadline
- Decisions announced May 10th
- Orientation (date TBD)
- Start date Monday July 3rd
- End date Friday August 11th



Questions

- Contact

engineeringoutreach@columbia.edu

- E.N.G. Program Staff

- [REDACTED], Director of Outreach Programs
- [REDACTED], Administrative Coordinator
- [REDACTED], Outreach Specialist
- [REDACTED], Outreach Specialist
- [REDACTED], Outreach Specialist





COLUMBIA | ENGINEERING

The Fu Foundation School of Engineering and Applied Science

Into



E.N.G. Program: Summer Research for High School Students at Columbia University Fu Foundation School of Engineering & Applied Science

Program Description

The E.N.G. Program is a 6-week summer research experience at Columbia Engineering for academically competitive high school students. Rising high school seniors will be placed in engineering labs, matched with research mentors, and supervised by faculty members. This program has rigorous demands and will prepare students for the caliber of work expected of college students.

Program components include research, mentoring, college preparation, presentation skills, as well as technical, academic, and professional development workshops. Students will also learn time management, communication, and teamwork skills, which are all increasingly important for success in STEM fields and in higher education. Possible extensions of the program include continuing research throughout the academic year, publication in the Columbia Junior Science Journal, and a letter of recommendation from the research lab's supervising professor and Principal Investigator.

Eligibility

Students must be current high school juniors to apply. While there is no minimum GPA, students should excel academically overall. Ideally, applicants will have

demonstrated interest in STEM subjects, for example by seeking out advanced classes and extracurricular activities.

Students must be available for the entire duration of the program. Students are required to present their project on the final day of the program, and prepare a poster to present at the undergraduate symposium in October. The program also requires students to attend a lab safety training as well as relevant workshops. Students will be awarded a stipend upon successful completion of the program.

Dates and Duration

The program runs from Monday July 3rd, 2017 through Friday August 11th, 2017. Students will work about 35 hours a week, Monday – Friday from 9am – 5pm.

Application Deadline:

April 14th, 2017 by 11:59 pm EST.

INSTRUCTIONS:

- While in this application form, you are able to navigate forward and backward throughout the form and edit your responses.
- You will be asked to upload your transcript and resume (PDF).
- Once you have submitted the application form, you will be unable to modify or input additional data.
- In order to make edits after submitting the form, you will have to reapply and submit another application.

- **Save the link in your browser to continue working on your application at a later date (before submission).**

Personal Information

Personal Information Form

Applicant Name

First Name:

M.I.:

Last Name:

Preferred name if different from above:

Address

Home Address:

City:

State:

Zip:

Phone Number:

Email:

Birth date

Month:

Day:

Year:

Gender

☐ Male☐ Female☐ Other

Optional: Choose one or more races that you consider yourself to be:

☐ White (including Middle Eastern)☐ Native Hawaiian or Pacific Islander☐ Black or African American (including
Africa & Caribbean)☐ Hispanic/Latino☐ American Indian or Alaska Native
(including all Original Peoples of
Americas)☐ Other☐ Asian (including Indian subcontinent and
Philippines)☐ Choose not to report

Optional: If Asian, What country/ethnicity of your family's origin?

Optional: If Native American/Alaska Native: What is your tribal affiliation?

Optional: If Hispanic, What country/ethnicity of your family's origin?

Language(s) (Optional)

Primary language
spoken at home:

First language if
other than English:

Will you be a first generation college student?

A first generation college student is defined as a student whose parent(s) or legal guardian(s) have not completed a bachelor's (4 year undergraduate) degree at a four year college or university in the United States. This means that the student will be the first in their immediate family to attain a bachelor's degree.

☐ Yes

☐ No

Emergency Contact

First Name:

Last Name:

Email Address:

Phone Number:

Parent/Guardian Information

Parent/Guardian 1:

First Name:

Last Name:

Email Address:

Phone Number:

Parent/Guardian Information

Parent/Guardian 2:

First Name:

Last Name:

Email Address:

Phone Number:

School Information Form

School Information

Name of School:

School Address:

Expected

Graduation Year:

Current GPA (out of
4.0):

Number of Science
and Math classes:

List of Math and
Science classes:

GPA in Science and
Math (out of 4.0):

If possible, please provide your SAT or PSAT scores

Which test are you
reporting?

Mathematics score:

Evidence-based
reading & writing
score:

Essay score:

Recommendation Information

Please ask your **science, math, or engineering** teacher to submit a recommendation on your behalf. Recommenders should email your letter of recommendation directly to Columbia Engineering Outreach Programs at engineeringoutreach@columbia.edu with the subject "**ENG Recommendation for [Student Name].**" **Word** or **PDF** formats are accepted.

Important: Please notify your teacher well in advance of the April 14th deadline to give your teacher ample time to prepare a letter of recommendation. **The recommendation must be submitted by 11:59pm on April 14, 2017.**

Name of teacher
providing
information:

Email address of
teacher:

Teacher's subject:

Essay Responses

Essay Responses

Please answer **all of the following** essays (two essays total) and limit your responses to **300 words or less**. Essays should be single-spaced and set in 12-point font. Please include your full name at the top of each document.

There are no "right" answers to any of these questions; essays will be judged for creativity, innovation, and your ability to convey your ideas clearly and concisely.

Upload your responses in a separate document below.

Essay 1. Explain why you want to participate in E.N.G. and what you hope to gain from the experience.

PDF format only

Please make the file name *lastname_firstname_essay1*

Essay 2. Please choose **one** of the following questions:

1. 3D printing involves the ability to make customized, complex, interconnected parts quickly and affordably. Please think about something in your life that you could fix or change with a 3D printed part. Describe your object, how it is used, explain why you chose it and how it will benefit society.

2. How do door stops work? How do different shapes and characteristics (material, roughness, weight) make some door stops better than others?

3. Imagine being in a driverless car, what does the car need to "see" in its surroundings? What sort of measurements or sensors would you put on the car, and how could you use that information?

4. How would you design an elevator? What sort of logic would you use to make the elevator more efficient at transporting people? What if the elevator shaft has two elevators?

PDF format only

Please make the file name *lastname_firstname_essay2*

Extracurricular Information Form

Please list up to three extracurricular activities in order of importance.

Extracurricular Activity 1

Organization

Position/Role

Hours per Week

Start Date

End date (list
present if ongoing):

Describe your
involvement and why
it is important to you
(100 words max):

Extracurricular Activity 2

Organization

Position/Role

Hours per Week

Start Date

End date (list
present if ongoing):

Describe your
involvement and why
it is important to you
(100 words max):

Extracurricular Activity 3

Organization

Position/Role

Hours per Week

Start Date

End date (list
present if ongoing):

Describe your
involvement and why
it is important to you
(100 words max):

Signatures/uploads

Uploads

Please upload a copy of your most recent high school transcript (**PDF** format only).
Please make the file name *lastname_firstname_transcript*

Please upload your current resume (**PDF** format only). **Please make the file
name *lastname_firstname_resume***

Optional: Please share any other information you would like us to know as we
consider your application. For example, have you overcome any social, personal,

or academic challenges?

How did you hear about E.N.G.?

Optional: Do you or a member of your family have any affiliation with Columbia University?

By signing below, I verify that all information provided in the application is accurate. Please submit this application along with all the required material detailed in the checklist.

I certify that all information submitted for my E.N.G. application is my own work, factually true and honestly presented. I understand that I may be subject to an admission revocation if this certified information is found to be false.

Applicant Signature:

×

SIGN HERE

clear

Date Signed (mm/dd
/yyyy):

Parent/Guardian Signature:

×

SIGN HERE

clear

Date Signed (mm/dd
/yyyy):

Thank you for applying to E.N.G. Engineering the Next Generation.

We will announce admission decisions by the first week of May.

Press next (>>) below to submit your application. You will not be able to edit after submitting. If you encounter any issues, please email engineeringoutreach@columbia.edu.

After you submit, you will be redirected to a page where you can save your responses (PDF). *Please **save this PDF** for your records.* Please also note that you will **not** be able to go back to that page once you close the browser.

Once you press (>>) your application will be recorded and you will not be able to change your responses.

