

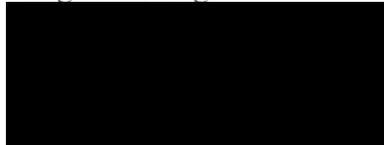
Letter of Intent—Math, Engineering, and Science Academy (MESA) Charter High School

I) Applicant Information

a) Co-Lead Applicants

Arthur Samuels

Pagee Cheung



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917-257-6876

Arthur Samuels is a teacher and administrator at the Renaissance Charter High School for Innovation; **Pagee Cheung** is currently the Director of Operations and incoming Dean of Instruction at Brooklyn Ascend Charter School

b) Media Contact—Arthur Samuels; arthur.i.samuels@gmail.com; 917-257-6876

c) Applicant Founding Group

Name	Relevant Experience	Proposed Role
Hilary Allen	Associate Director of Math for America, founding teacher at Achievement First, East New York; expertise in teacher training and development, as well as charter school start-up	Trustee
Tracie Benjamin-Van Lierop	Special Education Senior Instructional Facilitator, New York City Department of Education; expertise in teacher training, curriculum development, and Special Education	Trustee
Pagee Cheung	Director of Operations and Incoming Dean of Instruction at Brooklyn Ascend Charter School; expertise in charter school operations, curriculum and instruction, and teacher development	Principal
Rebecca Daverin	Director of Reporting and Compliance at Explore Charter Schools Network; expertise in charter school operations, reporting, and compliance	Trustee
Jon Davidson	Senior Manager Internal Audit Operations Department, Morgan Stanley; expertise in budgeting, finance, and financial planning	Trustee
Rajeev Nath	Director in Global Finance and Procurement, ANN Inc.; expertise in finance, strategic planning, and personnel	Trustee
Paul T. O’Neill	Partner at Cohen, Schneider & O’Neill LLP; Board Chair of Manhattan Charter School I and II; Professor at Teachers College, Columbia University; expertise in charter school start-up, design, and law	Founding Trustee
Ralia Polchronis	Associate at Paul, Weiss, Rifkind, Wharton & Garrison, LLP; member of NY State Bar Education and the Law Committee; knowledge of education law and expertise in charter school litigation	Trustee
Arthur Samuels	Founding College Bound Coordinator, Renaissance Charter High School for Innovation; expertise in charter school teaching, college and career readiness for low-income students, and partnership development	Executive Director
Bill Short	Director of Arthur O. Eve HEOP Program at St. Lawrence University; former President of statewide HEOP Professional	Trustee

	Association; expertise in partnership building and college and career readiness	
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- d) *Proposed Board of Trustees*—all of the founding members listed in I(c) above, with the exception of Pagee Cheung, Arthur Samuels, and Paul T. O’Neill will serve on the school’s Board of Trustees. Upon approval of the charter, Paul T. O’Neill will transition to an Advisory Board role and will serve on appropriate Board committees. Additionally, one space on the Board of Trustees will be reserved for a MESA parent.
- e) *Replication or Network Information*—MESA is not a replication or a part of any network.
- f) *Application History*—Paul T. O’Neill was the lead applicant for Family Life Academy Charter School and Manhattan Charter School II. Family Life Academy Charter School was approved by the SUNY Charter Institute in 2001, and MCS II was approved by the SUNY Charter Institute in 2011.

II) Proposed Charter School Information

- a) *Proposed school name*—Math, Engineering, and Science Academy (MESA) Charter High School
- b) *Proposed school Location*—New York City Community School District 32
- c) *Planned grades and enrollment for each of the years of the proposed charter*—

Projected Enrollment Table Over Charter Term*						
Grades	Ages	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018
9	14-15	125	125	125	125	125
10	15-16		125	125	125	125
11	16-17			116	116	116
12	17-18				108	108
Ungraded	18					26
Totals		125	250	366	474	500

*Table accounts for 10% student attrition

- d) *Proposed Management and/or Partner Organization*—MESA will not have a formal partner organization and is not affiliated with any Charter Management Organization or Charter Network. However, because Board Members Hilary Allen and Bill Short are affiliated with Math for America and New York State HEOP, respectively, MESA will be able to draw support from these organizations in areas such as teacher recruitment, professional development, and college readiness support.
- e) *School Mission*—Math, Engineering, and Science Academy (MESA) Charter High School provides a meaningful high school education that prepares each student for success in college or career. MESA students will develop a passion for science, technology, engineering and mathematics and, through an intensive college and career awareness and readiness program, become critical thinkers and self-advocates. This empowers MESA graduates to understand all of the options before them and, together with their families, develop a path to success after high school.
- f) *School Overview*—Every aspect of MESA’s design is built around enhancing academic rigor and promoting student learning. MESA will employ a **standards-referenced grading system**¹ that focuses exclusively on student performance on assessments. Multiple formative assessments—ranging from tests and quizzes to exit tickets, demonstrations, verbal or written

¹Marzano, R. J. (2009). *Formative assessment & standards-based grading*. Marzano Research Laboratory.

explanations or other, student-generated assessments—help the teacher track the progress of each student towards a learning goal. At the same time, students are trained to track their own progress on formative assessments, empowering them with understanding and ownership over their own performance. Students' grades are determined not by a weighted average of grades in various categories—homework, classwork, behavior, participation, quizzes, tests, papers—but by their performance on **summative assessments** given once the class has completed each learning goal.

Our experience working with at-risk students has taught us that most students will enter high school not only deficient in content knowledge, but also lacking the habits of successful learning. To help build these habits, **MESA students will receive separate Effort Grades** (called “E-Scores”) from each teacher, each week. Students will be given a grade of 0 (no effort) through 5 (maximum effort) on habits such as preparedness, punctuality, behavior, attendance, and effort put into work. These E-Scores will work in conjunction with awards or deductions for conduct. Students will receive rewards for consistently maintaining high E-Scores, such as dress down days, school t-shirts and other paraphernalia, and the privilege to participate in end-of-term and end-of-year trips.

Twice per week, MESA students will have a **double period of STEM-Block**, which is designed to **supplement core Math and Science classes by providing instruction through hands-on, project-based learning**. A STEM-Block class may explore key concepts of force and tension by constructing a series of weight-bearing bridges out of different materials; another STEM-Block class may focus on ecosystems by constructing different environments within aquarium tanks; yet another may explore the basic language of computer programming and how to build a simple video game. In addition to fostering a passion for math and science among all students, STEM-Block is **particularly beneficial to our most at-risk students**, such as Students with Disabilities and English Language Learners. The kinesthetic nature of STEM-Block will make STEM subjects more accessible to students who have not yet developed the language or computational skills to navigate traditional textbook- and classroom-based learning.²

Three times per week for all four years of high school, each student will take **College Bound**, a project-based course designed **increase college readiness, awareness and skills** starting from the first day of 9th grade. Many students enter 9th grade not understanding the connection between education and future economic opportunities. They are unaware of how the college application process works, or even that it exists at all. College Bound provides an opportunity to explicitly teach students the difference between meeting minimum high school graduation requirements and the high standards of achievement required to be a candidate for a four-year college.

Every MESA 9th grader will take a daily literacy class called **9th Grade Writing Seminar**. It will focus on reading non-fiction for content and fluency, and building basic arguments through writing. Writing Seminar will also teach basic spelling, sentence structure, writing conventions and grammar, with a goal of building sentences, paragraphs, and ultimately, short essays.

MESA will institute a **year-round schedule** that allows for additional instruction, with 189 days in the school year. The school will take longer breaks throughout the year—a week in October, a week for Thanksgiving—with a shorter summer vacation. This will allow

² Cuevas, P., Lee, O., Hart, J. and Deaktor, R. (2005), Improving science inquiry with elementary students of diverse backgrounds. *J. Res. Sci. Teach.*, 42: 337–357. doi: 10.1002/tea.20053

MESA to hold six professional development and grading days during the school year, keeping teachers and students refreshed and minimizing burnout. This also reflects the culture of professionalism that MESA strives to maintain—most professions do not have a two-month long summer break, but rather allow employees to take vacations in smaller, more frequent amounts. Most significantly, the year-round calendar **minimizes skill and knowledge loss over the summer**. This is particularly true for low-income students.³

- g) *Target population and community that the school intends to serve*—MESA intends to serve a population primarily from CSD 32. This is a high need population of students who have been, in most cases, ill-prepared for the rigors of high school and beyond. 90% of 9th grade students in the district are eligible for Free and Reduced Price Lunch; 17.6% of 9th graders are English Language Learners; 18.1% of students have disabilities. Demographically, 74% of students are Hispanic or Latino, 23% are African-American, 2% are Asian or Asian-American and 1% are White. Most significantly, CSD 32 is a district that suffers enormous student attrition between middle and high school. The 2014 cohort—the last one for which data is available—saw more than 900 students leave CSD 32 between 8th and 9th grade, which is the continuation of a trend going back for at least the past three years. MESA believes that it can offer these students the rigorous, college and career-preparatory education they and their parents are looking for, while allowing them to stay within the district.

III) Enrollment and retention of students with disabilities, ELLs, and students who are eligible applicants for the free and reduced price lunch program (FRPL)

Enrollment: MESA will employ several means to ensure the enrollment of students with disabilities, ELLs, and FRPL students. MESA’s lottery process will incorporate a **set-aside admissions preference for English Language Learners**. Additionally, MESA will continue to develop partnerships with local schools, community leaders, after-school programs for middle schoolers, and Community-Based-Organizations. MESA will also continue to employ grassroots recruitment, distributing flyers at local meeting points such as libraries, parks, major subway stations, and public-housing complexes. All recruitment and application materials will be printed in English and Spanish.

Retention: MESA will meet or exceed the preliminary targets established by the Board of Regents through a variety of strategies. To retain free and reduced-price lunch program students, MESA will ensure that all parents are informed of the program at the beginning of each school year. MESA will also ensure that if any parents need assistance completing paperwork or understanding the program, school staff will be available to translate or assist with any questions. For the retention of special education students, particularly those requiring more than 60% Special Education Services, MESA will closely monitor the progress of these students through the transitional inclusion program it will develop, monitored by a full-time certified Special Education Instructor. MESA will also offer intervention to students who may not yet be identified as Special Education but are at risk; therefore the special education teachers will familiarize themselves with all at-risk students, diagnosed or not, and can make recommendations as needed. ELLs will be supported by a full-time ELL teacher who monitors their progress throughout the course of the school year.

As developing young adults, high school students need not only academic support but social and emotional support as well. MESA will provide this through the implementation of a

³ <http://www.wallacefoundation.org/knowledge-center/summer-and-extended-learning-time/summer-learning/Documents/Making-Summer-Count-How-Summer-Programs-Can-Boost-Childrens-Learning.pdf>

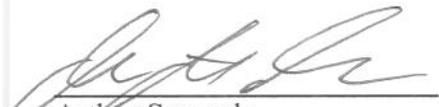
daily advisory program that will provide every student in the building with at least one adult whom they see as an unconditional ally and advocate. Advisors will call home monthly to check in with parents and update them on their child’s progress. MESA teachers will be required to make **positive phone calls home to parents**, reinforcing positive behavior, effort, or citizenship.

Finally, MESA will develop strong structures to support family and parent engagement. MESA staff will conduct **home visits** with every parent during the summer before the school year starts, developing relationships that can be built on. MESA will constantly take the pulse of parents through **micro-polling**, identifying areas of satisfactory parent service and areas that can be improved. MESA will also conduct **several parent workshops** throughout the year that support student learning, whether it be an exchange of strategies for helping teenagers do homework or a “MathFest” at which students and their families learn exciting math games. All of these efforts will help MESA parents feel welcome and included within the school community, leading to increased rates of student retention.

IV) Public Outreach and Community Support

To date, MESA has conducted extensive public outreach. We have contacted all local elected officials, and have spoken with Congresswoman Nydia Velazquez and Assemblyman Rafael Espinal, as well as representatives of Assemblyman Vito Lopez, Assemblywoman Annette Robinson, and Councilwoman Diana Reyna. We have formally presented our school to Community Education Council 32, the Citywide Council on ELLs, and the Bushwick Community Partnership Initiative. We have spoken at two meetings of Community Board 4. We have spoken with local school leaders, including the CSD 32 Superintendent, a CSD 32 principal who is the chapter representative to the Council of School Supervisors and Administrators. We have also spoken at length with the principal of one of the two K-8 Catholic schools in the district, and with the family advocate for CSD 32. We have met with local Community-Based Organizations such as EcotationsNY and East Brooklyn Congregations-Industrial Area Foundation. Lastly, we have spoken extensively with individual families in Bushwick. MESA set up a table at a recent Peace and Wellness Day event sponsored by Bushwick CPI, where we distributed literature and spoke with parents for more than four hours. We have distributed flyers at the local library and at the three public housing complexes in the district. We have placed an advertisement in the education issue of the Brooklyn Eagle, and will hold a Community Information Session in CSD 32 on July 11. Lastly, all information contained in our printed materials can also be found on our website, *mesacharterschool.blogspot.com*.

Based on our assessment of the high school options in CSD 32, the history of students leaving the district for high school, and anecdotal evidence gathered from our conversations during public outreach, we are confident that MESA will be able to exceed its anticipated enrollment. We have received enthusiastic support from elementary and middle school administrators, community leaders, and parents. We believe that, should the Regents authorize our school, MESA will draw from a strong base of community support.



Arthur Samuels 6/23/12
Date



Pagee Cheung 6/23/12
Date