



## **Part I – Eligibility Certification**

---

The signatures on the first page of this application (cover page) certify that each of the statements below, concerning the school's eligibility and compliance with U.S. Department of Education and National Blue Ribbon Schools requirements, are true and correct.

1. The school configuration includes one or more of grades K-12. (Schools on the same campus with one principal, even a K-12 school, must apply as an entire school.)
2. All nominated public schools must meet the state's performance targets in reading (or English language arts) and mathematics and other academic indicators (i.e., attendance rate and graduation rate), for the all students group and all subgroups, including having participation rates of at least 95 percent using the most recent accountability results available for nomination.
3. To meet final eligibility, all nominated public schools must be certified by states prior to September 2018 in order to meet all eligibility requirements. Any status appeals must be resolved at least two weeks before the awards ceremony for the school to receive the award.
4. If the school includes grades 7 or higher, the school must have foreign language as a part of its curriculum.
5. The school has been in existence for five full years, that is, from at least September 2012 and each tested grade must have been part of the school for the past three years.
6. The nominated school has not received the National Blue Ribbon Schools award in the past five years: 2013, 2014, 2015, 2016, or 2017.
7. The nominated school has no history of testing irregularities, nor have charges of irregularities been brought against the school at the time of nomination. The U.S. Department of Education reserves the right to disqualify a school's application and/or rescind a school's award if irregularities are later discovered and proven by the state.
8. The nominated school has not been identified by the state as "persistently dangerous" within the last two years.
9. The nominated school or district is not refusing Office of Civil Rights (OCR) access to information necessary to investigate a civil rights complaint or to conduct a district-wide compliance review.
10. The OCR has not issued a violation letter of findings to the school district concluding that the nominated school or the district as a whole has violated one or more of the civil rights statutes. A violation letter of findings will not be considered outstanding if OCR has accepted a corrective action plan from the district to remedy the violation.
11. The U.S. Department of Justice does not have a pending suit alleging that the nominated school or the school district as a whole has violated one or more of the civil rights statutes or the Constitution's equal protection clause.
12. There are no findings of violations of the Individuals with Disabilities Education Act in a U.S. Department of Education monitoring report that apply to the school or school district in question; or if there are such findings, the state or district has corrected, or agreed to correct, the findings.

## PART II - DEMOGRAPHIC DATA

---

Data should be provided for the most recent school year (2017-2018) unless otherwise stated.

### DISTRICT

1. Number of schools in the district (per district designation):
  - 280 Elementary schools (includes K-8)
  - 74 Middle/Junior high schools
  - 77 High schools
  - 41 K-12 schools

472 TOTAL

### SCHOOL (To be completed by all schools)

2. Category that best describes the area where the school is located:
  - Urban or large central city
  - Suburban
  - Rural or small city/town
3. Number of students as of October 1, 2017 enrolled at each grade level or its equivalent in applying school:

Grade	# of Males	# of Females	Grade Total
<b>PreK</b>	0	0	0
<b>K</b>	0	0	0
<b>1</b>	0	0	0
<b>2</b>	0	0	0
<b>3</b>	0	0	0
<b>4</b>	0	0	0
<b>5</b>	0	0	0
<b>6</b>	0	0	0
<b>7</b>	0	0	0
<b>8</b>	0	0	0
<b>9</b>	54	51	105
<b>10</b>	50	43	93
<b>11</b>	26	31	57
<b>12 or higher</b>	32	33	65
<b>Total Students</b>	162	158	320

4. Racial/ethnic composition of the school:
- 0 % American Indian or Alaska Native
  - 10 % Asian
  - 2 % Black or African American
  - 77 % Hispanic or Latino
  - 0 % Native Hawaiian or Other Pacific Islander
  - 11 % White
  - 0 % Two or more races
  - 100 % Total**

(Only these seven standard categories should be used to report the racial/ethnic composition of your school. The Final Guidance on Maintaining, Collecting, and Reporting Racial and Ethnic Data to the U.S. Department of Education published in the October 19, 2007 *Federal Register* provides definitions for each of the seven categories.)

5. Student turnover, or mobility rate, during the 2016 – 2017 school year: 9%

If the mobility rate is above 15%, please explain.

This rate should be calculated using the grid below. The answer to (6) is the mobility rate.

<b>Steps For Determining Mobility Rate</b>	<b>Answer</b>
(1) Number of students who transferred <i>to</i> the school after October 1, 2016 until the end of the 2016-2017 school year	8
(2) Number of students who transferred <i>from</i> the school after October 1, 2016 until the end of the 2016-2017 school year	19
(3) Total of all transferred students [sum of rows (1) and (2)]	27
(4) Total number of students in the school as of October 1, 2016	312
(5) Total transferred students in row (3) divided by total students in row (4)	0.09
(6) Amount in row (5) multiplied by 100	9

6. English Language Learners (ELL) in the school: 0%  
1 Total number ELL

Specify each non-English language represented in the school (separate languages by commas):  
Spanish

7. Students eligible for free/reduced-priced meals: 57%  
Total number students who qualify: 183

8. Students receiving special education services: 3 %  
8 Total number of students served

Indicate below the number of students with disabilities according to conditions designated in the Individuals with Disabilities Education Act. Do not add additional conditions. It is possible that students may be classified in more than one condition.

- |                                  |  |
|----------------------------------|--|
| <u>2</u> Autism                  | <u>0</u> Multiple Disabilities                 |
| <u>0</u> Deafness                | <u>0</u> Orthopedic Impairment                 |
| <u>0</u> Deaf-Blindness          | <u>2</u> Other Health Impaired                 |
| <u>0</u> Developmentally Delayed | <u>3</u> Specific Learning Disability          |
| <u>0</u> Emotional Disturbance   | <u>2</u> Speech or Language Impairment         |
| <u>0</u> Hearing Impairment      | <u>0</u> Traumatic Brain Injury                |
| <u>0</u> Intellectual Disability | <u>0</u> Visual Impairment Including Blindness |

9. Number of years the principal has been in her/his position at this school: 10
10. Use Full-Time Equivalents (FTEs), rounded to nearest whole numeral, to indicate the number of school staff in each of the categories below:

	<b>Number of Staff</b>
Administrators	2
Classroom teachers including those teaching high school specialty subjects, e.g., third grade teacher, history teacher, algebra teacher.	21
Resource teachers/specialists/coaches e.g., reading specialist, science coach, special education teacher, technology specialist, art teacher, etc.	3
Paraprofessionals under the supervision of a professional supporting single, group, or classroom students.	0
Student support personnel e.g., guidance counselors, behavior interventionists, mental/physical health service providers, psychologists, family engagement liaisons, career/college attainment coaches, etc.	3

11. Average student-classroom teacher ratio, that is, the number of students in the school divided by the FTE of classroom teachers, e.g., 22:1 15:1

12. Show daily student attendance rates. Only high schools need to supply yearly graduation rates.

<b>Required Information</b>	2016-2017	2015-2016	2014-2015	2013-2014	2012-2013
Daily student attendance	96%	96%	96%	96%	95%
High school graduation rate	100%	100%	100%	100%	97%

13. **For high schools only, that is, schools ending in grade 12 or higher.**

Show percentages to indicate the post-secondary status of students who graduated in Spring 2017.

<b>Post-Secondary Status</b>	
Graduating class size	52
Enrolled in a 4-year college or university	92%
Enrolled in a community college	6%
Enrolled in career/technical training program	2%
Found employment	0%
Joined the military or other public service	0%
Other	0%

14. Indicate whether your school has previously received a National Blue Ribbon Schools award.

Yes  No

If yes, select the year in which your school received the award.

15. In a couple of sentences, provide the school’s mission or vision statement.

To initiate the young mind into the art of thinking through the teaching of Mathematics and the Greek Language.

16. **For public schools only**, if the school is a magnet, charter, or choice school, explain how students are chosen to attend.

Students are admitted to the Archimedean Upper Conservatory, regardless of race, gender, religion or ethnic origin and our admission is equitable for all students.

There are two different groups of student-applicants enrolling with Archimedean Upper Conservatory: Student-applicants who are attending the Archimedean Middle Conservatory follow the articulation agreement between the two schools described below. Student-applicants attending other middle schools follow the lottery procedures described below. All student-applicants must complete the same online application. The application is available in three languages – English/Spanish/Creole. Admissions are based on a public lottery system in the event that there are more applicants than positions available. The purpose of this lottery is to create a priority list of student applicants per grade level for the upcoming school year only. Students are admitted based on their place on the priority list in numerical order and until all positions are filled. If an applicant is not offered admission for the upcoming school year, he/she will need to reapply for the following year.

(Articulation agreement between Archimedean Middle Conservatory and Archimedean Upper Conservatory): All graduating 8th grade students of Archimedean Middle Conservatory are automatically articulated in Archimedean Upper Conservatory after their successful application submission during the first application period and therefore are not placed in the lottery. Students who apply after the first application period will receive priority within the lottery of the period in which they submitted a successful application. If there are more Archimedean Middle Conservatory students applying for articulation than seats available then Archimedean Upper Conservatory shall hold a lottery for all said applicants. This lottery list shall have priority over the general lottery for admission to Archimedean Upper Conservatory.

(Lottery): The purpose of the lottery is to create a priority list (1st, 2nd, 3rd etc.). The student receiving a priority number 1 has priority over the student receiving priority number 2 etc. The following groups of

students are granted lottery priority. They will be placed in a separate lottery and assigned a position ahead of those applicants participating in the regular lottery:

All current Archimedean students within each school are automatically readmitted for the following school year without completing an application (e.g. 9th grade to 10th grade, 10th grade to 11th grade, 11th grade to 12th grade); and

The following groups of students will not have to participate in the lottery and will gain automatic admission/re-admission based on their successful completion of their application and space availability:

Archimedean Schools Board Members' children (Priority List #1);

Archimedean employees' children (Priority List #2);

Students who are the children of an active duty member of any branch of the United States Armed Forces. (Priority list #3); and

Siblings of current students of Archimedean Schools. (Priority List #4).

For the above categories a lottery will take place should the applicants be more than the spaces available.

The lottery dates are posted on the Archimedean website and on the school bulletin board. In addition, once the application period closes, the applications are processed and the applicants are notified via email as to when the lottery will be held. Specific details on the lottery procedures can be found at

<http://sis.archimedean.org/applications.php>

## **PART III – SUMMARY**

---

Archimedean Upper Conservatory (A.U.C.) is a conservatory of mathematics and the Greek language seeking to foster thinking skills, well-roundedness, intellectual curiosity, strong work ethics, and sound ethical conduct, believing that all students deserve to achieve their full potentials and lead happy, fulfilling, opportunity-rich lives. A.U.C. is a coeducational, partial Greek immersion charter school offering an academically rigorous and balanced college preparatory program. With the motto “knowledge is freedom,” A.U.C., despite its unique and intensive curriculum, is a public institution with open enrollment to all in Miami-Dade County. A.U.C. was initially accredited in 2012 by AdvancED. Four years later, in 2016, A.U.C. renewed its school accreditation by AdvancED as part of the Archimedean Schools K-12 District (school system) accreditation (which included Archimedean Academy, Archimedean Middle Conservatory, and Archimedean Upper Conservatory). A.U.C.’s combination of a familial environment with ample personal attention and a rigorous high-intensity curriculum has been the springboard to catapult students to opportunities often never imagined by them or their families.

In 2017-2018, A.U.C. has an enrollment of 320 students in grades 9-12. Most Archimedean students are minority, economically-disadvantaged, and “first-generation” college-bound students. More detailed student demographics are provided in the earlier parts of this NBRS application. With the student body small by design, A.U.C. is able to offer expansive personalized attention in a nurturing and supportive environment, A.U.C. providing personalized college guidance and support to each student, year-by-year, and his or her family, all while complying with N.A.C.A.C.’s Principles of Good Practices. A.U.C. aims to help each and every student pass successfully onto the college that best suits his or her personality, aspirations, and interests, urging students to consider a broad range of post-secondary institutions and encouraging open communication and teamwork among the students, parents, teachers, administration, and the college counseling team. Taking into consideration the student demographics, A.U.C.’s college-bound culture is essential to the school’s mission to provide the first critical steps towards its students’ upward social mobility and, by extension, to that of their families.

Archimedean strives to academically challenge every student regardless of initial academic level by offering and encouraging a large selection of rigorously taught Honors and Advanced Placement (AP) college-level courses with the student’s grade level determining the courses available every school year. Aiming to produce students who are capable of handling demanding coursework and course loads as well as a multiplicity of concurrent responsibilities characteristic of college and adult life, all A.U.C. students take two credits of additional core coursework yearly compared to Florida’s state graduation requirements resulting in an extended school day from 8:30AM to 4:30PM.

As a conservatory of mathematics and the Greek language, A.U.C. offers a one-of-a-kind, comprehensive, and stimulating English-Greek bilingual curriculum. The school offers an advanced and deep curriculum in mathematics with students taking two courses in mathematics yearly, one taught in English and the other in Modern Greek, throughout the first three years and one or two courses in mathematics their senior year. Research has established a positive relationship between basic thinking skills and the development of bilingualism. There are documented advantages of the effect of bilingual education on the augmentation of divergent thinking, problem solving, and pattern recognition.

The Greek curriculum in mathematics is taught in Modern Greek in a partial immersion instructional setting with the intent of weaving in European educational elements and enhancing the standard American curriculum. Similar to mathematics, the Greek language curriculum is taught in a partial immersion manner, the students being exposed to four years of consecutive Modern Greek language coursework. Students are encouraged to think globally and seek official diplomas in Greek as a foreign language as issued by the Centre for the Greek Language, a not-for-profit organization of the Greek Ministry of Education, following the Standards for Language Attainment set by the European Union. Through a generous cooperation with the Greek Ministry of Education, native Greek teachers are sent to Archimedean to help teach the Greek program component, which intimately exposes students to a foreign culture and its differing perspectives, opening students’ minds, building cultural tolerance, and augmenting self-awareness and identity.

The American curriculum includes subjects in Language Arts, non-Greek Foreign Languages, Mathematics, Sciences, Social Sciences, Philosophy, and the Fine, Practical, and Performing Arts taught in English and based on both the Florida Standards and the national standards set by College Board. The enhanced science curriculum features mostly Honors and Advanced Placement courses, following a “Physics-First” sequence, with additional 1/2-credit pre-AP science options. Students are also exposed on a yearly basis to philosophy coursework that seeks to stimulate in students the ability to think deeply and creatively, write effectively, and contemplate social issues from various points of view. Four years of Honors and Advanced Placement social sciences and history coursework as well as additional opportunities to further foreign language competences serve to develop a well-rounded and deeper understanding of the world. During the summer break, A.U.C. students have the opportunity to expand on the school’s core curriculum with additional online classes through the Florida Virtual School (FLVS) and/or dual-enrollment classes at Miami-Dade College or Florida International University.

A.U.C. has received a School Grade “A” from the Florida Department of Education since the first year of its evaluation (2009). More importantly, based on FLDOE’s School Accountability Report, A.U.C. has consistently ranked among the Top-3 9-12 public high schools in the state. In 2016 and in 2017, A.U.C. ranked #1 among approximately 500 schools! This is consistent with a tradition of educational excellence set by all Archimedean Schools, which was recognized officially by Miami-Dade County’s School Board in Resolution 10-088, which recognized A.U.C.’s status as a top Florida high school and one that maintains a safe environment filled with the kind of rigor that contributes to student success.

Every year, the Advanced Placement program at Archimedean Upper Conservatory is consistently, the most successful of such programs in Miami-Dade when taking into account jointly its width (percentage of the students participating in the A.P. program), its depth (average amount of A.P. courses/exams completed per student), and strength (percentage of exams receiving a score of 3 or higher). In addition, the A.P. program at A.U.C. has significantly grown in size over the last five years all while maintaining its high standards. In 2013, 139 A.U.C. students (72% of the student population at the time) participated in the A.P. exams with a passing rate of 72%. In 2017, 250 students (83% of the student population at the time) participated in the A.P. exams with a passing rate of 68%. The school is particularly proud for its Equity and Excellence Index of 94%, which is a metric from College Board capturing the percentage of a school’s graduates that have been successful in at least one A.P. exam.

Archimedean Upper Conservatory’s rigorous academic program and top educational outcomes have been consistently recognized at a national level. A.U.C. has been ranked among the Top 100 high schools in the country every year. In 2017, The Washington Post ranked A.U.C. as the 30th Most Challenging High School in the U.S., while the U.S. News and World Report ranked the school as the 81st Best High School and 26th Best Charter High School in the nation. Those national rankings are based on a list of approximately 22,000 candidate high schools.

The greatest recognition of the quality of education and the academic accomplishments of Archimedean Upper Conservatory comes from the universities and liberal arts colleges across the country. A.U.C.’s college admissions record, the culmination of four-years or hard work and dedication from faculty, students, administration, and parents, is unrivaled by any public high school in Miami-Dade. From 2012 until 2017, A.U.C. graduated 255 students; 100% of them enrolling in an institution of higher education immediately after graduation (compared to the state average of 59%). Of the 255 graduates, 96% earned admissions to a four-year liberal arts college or university, approximately half earning admissions to a Top-50 institution and an amazing 21% earning admissions to a Top-25 institution! The 255 Archimedean alumni attended/are attending approximately 60 different colleges and universities across the nation, a sign of the personalized support and planning our school offers each student in the effort to place each student at a higher education environment that best matches his/her needs and objectives. In 2017, A.U.C. was recognized as the Florida F.A.F.S.A. Champion, for having the highest participation rate in the Free Application for Federal Student Aid (F.A.F.S.A.) among all high schools, small, medium, and large, in the state of Florida. The 255 A.U.C. graduates were offered in scholarships and grant monies a total of more than \$15,600,000 per year. Approximately 5% of these students have been recognized as National Merit Semifinalists, the highest percentage by far among all public high schools in Miami-Dade, and about 20 times higher than the district average. The percentage of A.U.C. graduates who became Posse Scholars, and thus receiving full tuition

scholarships and additional leadership training and mentorship throughout college, is also about 20 times higher than the district average.

## **PART IV – CURRICULUM AND INSTRUCTION**

---

### **1. Core Curriculum:**

Archimedean Upper Conservatory offers an extended and rigorous core curriculum with mandatory courses in English/Language Arts, Mathematics, Sciences, Social Sciences, Greek, and Philosophy. Whenever possible, courses are offered at the honors and Advanced Placement (college) level. Emphasis throughout all subject matter is on building the required college academic and study skills to maximize student success in their post-secondary studies, thereby enhancing career success. Seven out of the eight courses taken a year are part of a mandatory, balanced, and unique curriculum emphasizing growth and enrichment in both the humanities and languages as well as STEM fields, ensuring students build foundational skills and acquire knowledge across a myriad of subject matter that will allow them to more successfully pursue post-secondary studies and career preparations in any academic field they may decide upon later in college and helping them more successfully navigate the increasingly interdisciplinary, global, rapidly-evolving world they will have to occupy successfully in their career and social lives.

The school's English/Language Arts department enacts a tripartite approach to reading: historic, thematic, and hermeneutic. Freshman courses focus on the concept of mythos as a foundational framework for unpacking early Greek tragedies and Anthony Burgess's works alike. This includes archetypal theories ranging from Aristotle's Poetics to Freud's theories. Sophomore year courses focus on broadening the scope of reading to World Literature and a sustained examination of tropes introduced freshman year. Junior year courses delve into nonfiction texts from a rhetorical perspective; namely, students read pivotal speeches and treatises in US literary history to gain a nuanced understanding of not only how a text is constructed to meet its historical context but how the text operates relative to historical tropes. Finally, seniors focus on imaginative literary works in the Western canon since the 16th century, tracing the relationship between socio-historical events and their impact on the evolution of literary forms—from Shakespeare to slam poetry, essentially. The department's goal through each stage is to develop a working framework for interpreting literary texts in a structuralist fashion. Throughout the course of this vertically aligned curriculum, students work through the entirety of learning standards, ensuring they have built, by the end of senior year, the skills required to be ready for and successful in college, even allowing students to advance in their college coursework earlier in their post-secondary careers should they so desire due to their strong language arts command by the end of high school. Approximately 60% of A.U.C.'s students, for example, pass both Advanced Placement English Language & Composition and Advanced Placement English Literature & Composition examinations, translating to the earning of six college credits in college English courses, typically ENC1101 and ENC1102.

The objective of the A.U.C. Mathematical curriculum is to initiate its students into the rigor and applications of Mathematics. It aims to balance instruction between revealing the beauty and aesthetic quality of mathematical ideas and the learning of skills in mathematics that act as tools in the disciplines of Science, Technology, and Humanities. The curriculum consists of two strands: (i) The Mathematical Analysis and its Applications Strand consists of Elementary Algebra, Pre-Calculus, Calculus Honors (of functions of one variable), Advanced Placement Calculus AB, BC, and Statistics as well as Dual Enrollment Multivariable Calculus. (ii) The Geometry and Combinatorics Strand consists of a rigorous course in Euclidean Geometry in which students exercise the axiomatic method and learn firsthand the rigor of a mathematical proof. Then students are exposed to the blending of Algebra and Geometry through a full year of coursework dedicated to Trigonometry and Analytic Geometry. In the 11th-grade Discrete Mathematics course, all students learn about Propositional Calculus, its tautologies, formal deductions and Syllogisms, and about the ideas of Counting and introductory Finite Combinatorics. The pedagogy of AUC's mathematics focuses on answering two questions: how does one make mathematics work and why does mathematics work.

The science curriculum aims to build in students the skills needed to think deeply through complex scientific concepts in order to support success in future studies at the post-secondary level, the emphasis being on reaching higher levels of conceptual understanding and learning how to think critically, analytically, and logically while applying knowledge rather than merely engaging in rote and superficial memorization. As such, Archimedean has deviated from the traditional science sequence taught in most U.S. high schools,

implementing a Physics-First curriculum, students taking Physics in 9th- (College Prep or Honors levels), Chemistry in 10th- (Honors or AP levels), Biology in 11th- (Honors or AP levels), and AP Physics C or Environmental Science (College Prep or AP levels) in 12th-grade. This deliberate educational choice to teach from the macroscopic (Physics) to the microscopic (Biology) ensures that concepts build in a logical sequence for students. All students, no matter their academic interests are mandated to complete this rigorous four-year science curriculum, the more ambitious students wishing to delve more deeply into their science coursework and opting to take AP-level Chemistry and Biology also receiving an additional two semesters of AP level instruction. Though Physics is typically not taught until senior year, if taught at all in the U.S., our freshmen, immediately upon entering high school, are already introduced to higher level textbook reading and ideas that not only accelerate the acquisition of higher order thinking skills, but also form the foundation for subsequent science learning. For example, Physics introduces topics within mechanics, electricity, and magnetism, which will be revisited senior year in AP Physics. Furthermore, Physics introduces students to the scientific method, laws of thermodynamics, concept of matter, concept of energy, its storage and transfer, crucial to the understanding of concepts in chemistry such as nuclear forces, chemical structures, bonding, etc., allowing for a more in depth understanding and appreciation of Chemistry in 10th-grade. Similarly, Chemistry educates students on topics such as chemical reactions, intra- and inter-molecular forces, thermodynamics, and more that allow students to better comprehend their subsequent biology and its exploration of carbon chemistry, molecular biology, physiological processes and biochemistry, the recycling of matter and energy transfer within ecosystems and more, the latter being further explored senior year in Environmental Science, where students tie knowledge learned in previously in ecology to policy development and the idea of sustainability.

The social studies curriculum introduces students to the cultural, economic, political, and intellectual developments that have played a fundamental role in shaping the world in which they live, without which students would lack the necessary context for understanding the development of contemporary institutions, the role of continuity and change in present day society and politics, and the evolution of current forms of artistic expression and intellectual discourse. All students are required to take four years of social studies coursework, being mandated to take at least one of these courses at the A.P. level, the student body averaging three A.P.'s in social science throughout high school, forcing students to be exposed to college level work and expectations to ready them for future college demands. In addition to providing a basic narrative of event and movements within each specific course, the department also stresses developing a broader understanding of historical themes, the ability to analyze historical evidence and historical interpretation, and the ability to express that historical understanding in writing, this focus emphasized throughout the core curriculum from 9th-grade Honors or AP World History to 10th-grade AP European History and AP Human Geography courses to 11th-grade Honors or AP U.S. History to 12th-grade Honors or AP Economics and Honors or AP U.S. Government, this focus also extending into the electives offered by the department, such as AP Art History and Competitive History Preparation coursework. All courses are only offered at the Honors and Advanced Placement levels. Given that our students often come from lower socioeconomic backgrounds and more than half end up being first general U.S. college students, these courses aim to bridge the gap many of our students have in terms of understanding world affairs, politics, cultural history, and economics in order to better ensure these students success as they continue on to college and mingle with students of different socioeconomic strata, maximizing also opportunities for successful interdisciplinary studies at the post-secondary level at universities or liberal arts colleges.

## **2. Other Curriculum Areas:**

The A.U.C. Visual and Performing Arts program offers students comprehensive art experiences with detailed explorations in art production through sketching, drawing, painting, sculpture, crafts, singing, and theater. The different art classes are offered as electives and are open to all students. In drawing and painting classes, from beginner to advanced, in addition to gaining confidence and proficiency working with a variety of mediums, students learn the art of constructive criticism and, by being exposed to the elements and principles of art, learn about the major art movements and the contributions influential art and artists make to culture and society (art history), learning about and how to analyze famous artworks as well as how to apply the techniques of the masters as a vehicle through which students can discover their own artistic preferences and reach a richer understanding of the nature, meaning, and value of art (aesthetics). Our Theater courses are designed for novice students with little or no acting and drama production experience in

Theater 1 as well as those with some foundational experience in Theater 2. They promote the enjoyment and appreciation for all aspects related to drama as an artistic form of expression. Classwork focuses on the exploration of theatrical literature, performance, historical and cultural connections, and technical requirements, and provides opportunities to build significantly a student's acting skills. Improvisation, creative dramatics, and beginning scene work are used to introduce students to acting and character development or to strengthen preexisting acting skills while the second year course also focuses on characterization, playwriting, and reaching a greater understanding of a playwright's contributions to theater. The incorporation of other art forms in theater production development also helps students gain an appreciation for other art forms such as music, dance, and the visual arts. The A.U.C. Chorus class is a rigorous and challenging standards-based instructional program that provides a nurturing and positive environment to help students succeed socially and academically. Besides learning the theory and history of music and its influence in society, yearly competitive performances as well as concert attendance help students connect music with other areas and subjects outside the arts. Through the chorus class, students grow not just as musicians, but also as individuals with stronger confidence and sensibilities for others.

The Physical Education Curriculum at Archimedean Upper Conservatory consists of two courses, Personal Fitness and Fitness Lifestyle Design, a mandatory graduation requirement for all students. The main goals of these courses are to introduce students to the concept of a healthy lifestyle and physical activities in which the students will be able to remain engaged as adults while teaching basic planning skills in building personal training programs that reflect students' own needs and objectives. Archimedean's Physical Education Program incorporates health, nutrition, stress management, consumer choices, and weight control aspects. It teaches essential body movement skills, engages students in activities that strengthen the bones and muscles, promotes fitness, and creates an environment that encourages healthy movement. The P.E. Department emphasizes the benefits of the physical activities on reducing the risk factors of cardiovascular disease, type 2 diabetes, and some types of cancer. The program reflects the Florida's physical education standards, which are organized around four strands that define the major elements of quality physical education: Movement Competency, Cognitive Abilities, Lifetime Fitness, and Responsible Behaviors and Values. Our physical education curriculum is complimented by our school's athletic program, which offers interested students additional avenues for the exploration of physical activity as part of our athletic teams.

The aim of the Greek language curriculum, a mandatory yearly course in the Archimedean Upper Conservatory is to immerse the students in the Greek language, by providing them with vocabulary knowledge related to the main aspects of human life, such as self-introduction, family relationships, leisure activities, vacation and travel, food, shopping, housing, studies, employment, health, and interaction with the public sector and other utility companies. Moreover, students acquire knowledge of the structure of Greek and its various grammatical forms. Although the covered topics remain the same for every level, the material is enhanced and develops spirally as the students advance and deepen their fluency. The students develop four main skills: reading and listening comprehension, writing, and speaking. As soon as the students attain enough knowledge of Greek, usually proven by their successful participation in attainment exams held by the Greek Department of Education that help push student achievement in the language while enhancing their resume for college and career searches, the curriculum immerses them into the Greek culture and traditions. The students engage their creativity, critical thinking, and research skills in order to construct their own knowledge, which is tested both by their classmates and their teacher. Greek art, music and movies, mythology, national and religious holidays, and everyday habits are some of the topics covered. Finally, the most advanced students are challenged in researching and discussing sensitive social issues, such as euthanasia, injustice and wealth distribution, commercials and consumerism. Greek, however, is not the only foreign language and cultural study opportunity presented to our students, electives being offered in French and Spanish in house, the students also having access to further language education through courses offered online through Florida Virtual School and at the local public college and university through Dual Enrollment, through which students have studied foreign languages such Latin, Chinese, Italian and more.

Various electives expose students to the use and understanding of technology and computers, expanding a student's technological and computer literacy, thus, augmenting their access to information and knowledge. AP Computer Science Principles introduces students to the basic principles of computation, student being exposed to programming, abstractions, algorithms, large data sets, the Internet, cybersecurity, and the impacts of computing on society. In this course, students are taught JavaScript as the main programming

language. By design, students use technology to design solutions to real-world problems, building useful problem solving and collaboration skills that they will carry with them throughout their post-secondary studies and adult careers. This course is the first in a two year sequence of computer science coursework offered at Archimedean and serves as the foundation to the more advanced AP Computer Science A course that follows. The course culminates in the students taking the AP exam in May, though students also complete two performance tasks administered by the teacher and, in getting hands on experiential learning, also submit a digital artifact to College Board as part of the course, which could include such creations as software programs, digital art or video creations. AP Computer Science A focuses on problem solving, algorithm development, and object-oriented programming, the student learning programming in Java and studying data structures and abstraction, the course culminating in the taking of the corresponding AP exam as well. Again in this course problem solving through the design of software is emphasized while students are forced to enhance their communication skills through during the discussions of alternative solutions and problem solving strategies and debugging activities. Students also are educated about the ethical and social implications, as well as privacy issues, related to the field of computer science and its many products. The Journalism elective is part of the curricular focus related to media studies. In this course, students write, edit, design, and produce Archimedean's student-led school newspaper and student-designed yearbook, activities that augment students' communication, organization, collaboration, and research skills, students having access to additional resources through the high schools lending library and its online JSTOR subscription. Students in Journalism, just as all classes across the curriculum, have ready access to Macbooks for use in class as needed. Science and technology research electives allow students to delve more deeply into robotics and engineering topics such structural design, contraption construction, and related programming, students applying the knowledge learned in competitions such as Science Olympiad, Vex Robotics, and SECME. Determined to green campus, build stronger computer literacy, and graduate students prepared for 21st century, technology has been deliberately integrated into A.U.C.'s wireless campus and online learning environment. Throughout Archimedean's courses, an ever-growing proportion of students' home learning necessitates the use of computers and expanding numbers of assignments are becoming fully paperless, being accessible, completed, submitted, stored, and graded online through A.U.C.'s very own content management system, a.k.a. "Archie," for example.

The philosophy curriculum is part of the mandatory core curriculum at Archimedean Upper Conservatory for all students and comprises a progression of diverse segments of this discipline starting with Ethics, passing through Semantics and Logic, then Political Philosophy, and culminating with in a course in Women's Studies. Ethics is a foundational course which seeks to introduce young thinkers to the study of morality in the context of the individual and society, while reflecting on the strengths and weaknesses of key ethical theories such as egoism, relativism, absolutism, deontology, virtue ethics, and utilitarianism. Ultimately, the main objective is for students to approach ethical disagreements in a way that is more likely to generate thoughtful discussion and open-minded consideration of alternative views. The aim of Semantics and Logic is to introduce sophomore students to a system of methods and principles to evaluate arguments. This acquisition is done through the discussion of topics that go from Categorical Logic to the concept of natural deduction proof and translation. Political Philosophy aims to build a link between the concepts of justice, peace, knowledge, and the institutions of government. Juniors will construct this link through reading political theory ranging from ancient times--Plato--to modern times--Hobbes, Locke and Rousseau to name a few. Women's Studies aims to help the students understand how the ideals and institutions in our culture affect the status and well-being of different groups in our society. Students achieve this by discussing writers such as Simone de Beauvoir, Marilyn Frie, etc. The curriculum aims at developing lifelong learning and communication skills, not only ensuring a meaningful and successful experience through college, but throughout adult life. Students learn how to read text critically and how to deal with challenging vocabulary, they develop and practice their problem-solving abilities when asked to apply theories or analyze arguments, and are stimulated to articulate their thoughts both orally and in writing, given the strong emphasis on discussion and the communication of ideas in the courses.

### **3. Instructional Methods, Interventions, and Assessments:**

Numerous instructional techniques and strategies are employed based on the specific content, educational objectives, and student needs, the large diversity in faculty educational backgrounds and cultural upbringing also contributing to the varied approaches to teaching and learning, a beneficial element for our students'

long term development in an increasingly interconnected world seeing as how it teaches students to be productive and successful under different instructional models they will encounter throughout their college and career. ELL and ESE students are taught in a full-inclusion model and receive consultation support by appropriately trained staff members. While direct instruction is one of the most common approaches employed, differentiated instruction is blended as needed, especially in less homogeneous groups.

A key and consistent characteristic across classrooms at A.U.C. is the faculty's persistence in leading highly interactive lessons, with significant time dedicated to academic teacher-student and student-student discourse, classes on average kept small enough to facilitate the sharing of ideas. Several techniques supplement teaching and learning to better serve the needs of each student/class, such as peer-to-peer work reviews, guided readings, group projects and group presentations, independent projects, and reciprocal teaching.

Technology - from student laptop access, classroom iMacs and LED projectors for teacher use to school-wide access to internet and online educational resources, media, and more - is used by the faculty mainly to facilitate and supplement instruction, to target different student learning styles, to make instruction available outside the classroom and class time, and by the students to facilitate research and peer reviewing/editing. Significant investment in technology development has been made as well to support student learning. For example, Archie is a dynamic content management system designed by Archimedean that allows teachers to post and collect homework digitally, post resources from pdfs to URLs to videos, and communicate via a classroom message board or email to individual students, the entire class, and/or the students' parents. Similarly, Cinemath, a software developed by and used at Archimedean as well functions to instantly capture as a movie the digital instructional screens/writing and classroom voice content, making these instructional components immediately available to all students for download, a useful resource for students who may want to later (re)visit a particular lecture to study the material better or when needing to catch up after a student absence.

A.U.C.'s students participate annually, as required by the Florida Department of Education, in all grade- and course-appropriate Florida Standards Assessments (FSA) and End-Of-Course (EOC) examinations. In 2016-2017, for instance, A.U.C. students participated in FSA ELA for grades 9 and 10, as well as EOC exams for Algebra I, Geometry, Algebra II, Biology, and U.S. History, 100% of our students participating in testing. In addition to these state assessments, students, in the appropriate grade-level, participate in national college readiness and college-level assessments, including the PSAT, SAT, ACT, and Advanced Placement (AP) examinations. All A.U.C. students participate in the SAT and/or ACT examinations, most of this testing taking place junior and senior year.

All A.U.C. students enrolled in an Advanced Placement (AP) course are required to take the corresponding A.P. exam in May. In 2017, a total of 250 students took in total 571 A.P. exams in 22 different subjects (Art History, English Language & Composition, English Literature & Composition, European History, Human Geography, Macroeconomics, Microeconomics, Psychology, U.S. Government & Politics, U.S. History, World History, Calculus AB, Calculus BC, Computer Science Principles, Statistics, Biology, Chemistry, Environmental Science, Physics C: Electricity and Magnetism, Physics C: Mechanics, Chinese Language & Culture, and Spanish Language & Culture).

Every May, A.U.C. students participate in the international examinations for Greek language attainment organized by the Center for the Greek Language, a not-for-profit organization of the Greek Ministry of Education. These examinations follow the Common European Framework of Reference for Languages (CEFR), which applies to all European languages since 2001 and divides learners in three broad divisions: Basic users of the language (levels A1 and A2), Independent users of the language (levels B1 and B2), and Proficient users of the language (levels C1 and C2). By graduation from A.U.C., about half of the students have earned one or more Greek language level diplomas. In May 2017, 80 A.U.C. students participated in these Greek language examinations with a success rate of 82.5%.

Scores from all the standardized (state, national, and international) examinations mentioned above are recorded and analyzed over the summer, along with other data from in-class formative assessments, grades, and student evaluations. Development of the school's master schedule for the following year, and students'

placement to different courses and course levels, commences later in the summer, only after all these data have been made available to the school and have been analyzed by the administration and faculty. This ensures that the master schedule gets customized to address the needs of each student individually, based on his/her previous year progress and performance, thus allowing truly individualized schedules and rather homogeneous groups for all classes. As a final step in this process, the full-range of data are disseminated, discussed, and analyzed in faculty meetings, prior to the beginning of the school year, in order to make necessary adjustments on instructional techniques and interventions, as well as, make minor curricular modifications or student placements, all based on the students' strengths and weaknesses as revealed by the data analysis. This data-driven approach to curricular planning, starting at the macroscopic level during the summer planning period and continuing down to the microscopic level during the school year, not only ensures the overall educational excellence of the school year after year, but greatly contributes to an overall general absence of learning/performance gaps between student subgroups (such as ESE, ELL, minorities, or socioeconomically disadvantaged students) as well as to the top high school rankings of A.U.C. at the state level (as per the Florida Department of Education) and at the national level (as per the U.S. News & World Report) based on methodologies that directly take into account the existence and degree of such gaps.

In cases where some learning gaps do arise, such as if a student performs poorly in ELA exams, the student, as a strategy to close any achievement gap, is mandatorily placed the following school year in an Intensive Reading course with a trained English language teacher to target reading proficiency and strengthen reading comprehension skills. Students with weaknesses in other disciplines, such as algebra or biology, are offered regular before or after school tutoring session free of charge, led by their teacher in the subject. In general, all students enrolled in any course culminating in a state, national, or international exam are offered additional free voluntary after school and weekend review sessions. Students needing additional assistance in Greek or heavier preparation to advance faster in Greek also receive additional small group support (pull-outs). Students who fail a course or wish to improve upon an initial weaker performance are offered summer school opportunities through the free district summer course recovery option or online through Florida Virtual School, A.U.C. taking on the cost of enrollment. With A.U.C.'s open door policy and friendly approachable environment, students readily seek out advice from the administrators and College Counselors, the students being encouraged to make appointments with faculty when they do not understand any topic covered in class while parent meetings are scheduled regularly, parents brought in to meet with all teachers who are made available to provide feedback and advice when needed. A.U.C.'s special education specialist is readily available to help students and families get the appropriate accommodations as needed so that the student has the appropriate support and help necessary to reach their maximal potential.

In 2017, 54% of seniors earned an AP Scholar award for their success in passing several AP exams while our school had an overall Equity & Excellence Index of 94% (the percentage of seniors who scored at least a 3 or higher, i.e. passing score, in one or more Advanced Placement exams as calculated annually by College Board), evidence that all students at Archimedean Upper Conservatory are held to high standards and are learning at a high level. High achievement is maintained by regularly reminding stakeholders, in one-on-one and cohort meetings with students and parents as well as faculty meetings and celebrations of student excellence such as Honor Rolls and Awards Banquets, about the academic performance demands, college placement goals, and high learning expectations of Archimedean Upper Conservatory.

## PART V – SCHOOL SUPPORTS

---

### 1. School Climate/Culture:

A.U.C. presents students with one of the most rigorous educations as its ranking as the 30th Most Challenging in the U.S. by The Washington Post signals. Because putting in the hard work is easier when the purpose and goals are clear to students - success in college admissions and augmented career opportunities through the development of essential critical thinking skills and a strong base of academic/study skills and knowledge, communication relating to college preparation starts freshman year and continues yearly.

Through cohort-specific presentations and workshops targeting the dissemination and teaching of useful college and summer enrichment application knowledge and skills by grade level, students are guided through age-suitable benchmarks in the college application preparation and decision-making process with the hope of making their high school experiences and college transitions as fruitful, fulfilling, and seamless as possible, students frequently interacting with their college counselor in order to build a strong and open relationship between the two, fostering an environment where questions can easily be asked and students are motivated to dream big and think long term.

Kept deliberately small to ensure individual attention, A.U.C. provides personalized guidance and support to every student (and family), A.U.C.'s open door policy making it so students can readily access their college counselor or get mentoring advice from the administration without obstacle so they feel heard. The theme of being an Archimedean family and preparing as team for each student's fulfilling futures extends throughout all interactions.

A.U.C.'s College Office invites college admissions representatives every fall to the Archimedean campus to present directly to students in order to educate them on what admissions officers look for in an applicants, teach them what differentiates colleges, and excite and motivate students by informing students of the opportunities for academic, social, and career growth that await them in college. Archimedean's college going culture and students' regular access and interaction with college admissions officers builds a deep understanding about our college preparation process and curricular choices.

While faculty are encouraged to connect their course material to the skills and knowledge students will need to understand and navigate through the real-world, Archimedean deliberately encourages students to seek out additional stimulating experiences not only in the summer months, but also throughout the school year. Archimedean's school spirit is definitely enhanced by the high level participation in the many academic-, artistic-, and technology-based competitive student teams and involvements in addition to a rich athletic program in which students can participate with little obstacles to participation given our small student body size and lack of athletic recruitment - just under 40% of students involved - in up to seven sports [tennis, track & field, cross country, volleyball, basketball, swimming, and soccer], the students' achievements, in and out of the classroom, even reaching into their college admissions, athletic recruitment, scholarship earning, and more being publicly celebrated in various school events such as quarterly Honor Rolls and the annual fall Awards Banquet, which starts the year of on a positive and inspiring note, these celebratory events being held during school hours and being attended by all students in all four grades simultaneously to maximize student participation and ensure that every student, regardless of transportation limitations, parent work schedules, or parent interest, can and does attend in order to see the achievement of faculty, the school, and classmates as well as to get recognized for their own achievement as a method for encouraging the continual striving for excellence among direct stakeholders. Students even enjoy the occasional surprise ice cream party when new school rankings or major achievements are announced as a token of appreciation for a job well done, these tiny gestures serving as small motivators to keep putting in the extra effort and hard work throughout the year in classwork and extracurricular activities.

Since school should be a welcoming environment where students feel supported and bonds of friendship can be built in addition to the academic enrichment being obtained, deliberate initiatives and traditions are engaged in to enhance students social and emotional experiences and development. At the Annual Awards

Banquet at the start of the school year, seniors prepare scrolls with motivational messages to hand out to each freshman individually welcomed into the AUC family by name. Awards at the Awards Banquet acknowledge students grades, achievements state and national standardized and AP tests, and Greek attainment, but also celebrate students who have shown exceptional character, helpfulness, and altruism throughout the previous school year as a way of encouraging an environment of support and kindness. Interested rising seniors are also trained as peer mentors by our Trust Counselor, who then are assigned small groups of freshman to befriend, guide, and advice throughout their freshman year to help ensure a smooth transition into our high school and, once more, make freshman feel part of a welcoming community and family who listen and care. Excitement always builds towards the end of the year when the multi-day overnight field trip to a local upstate approaches, a trip whose cost is kept low to maximize affordable and which is open to all grade levels while being strategically planned to encompass a variety of team bonding and social skill developing, laughter-inducing and physically interactive exercises and activities. Classes may also organize smaller day field trips to enrich the learning happening in the classroom as it relates to specific topics being covered.

To enhance teaching effectiveness and space, and provide faculty with an environment that supports their teaching endeavors and needs, the addition of a brand new secondary school building has brought about additional classroom and work spaces for encouraging faculty collaboration, interaction, and planning, the new building containing two spacious teacher lounges: one for dining, relaxation, the informal sharing of ideas, and socializing as well as a second, quiet working lounge for tasks that require concentration such as grading, lesson planning, independent study and more. A private conference room facilitates parent-teacher-student meetings. Classrooms, painted in a variety of soft colors to boost psychological mood, are also all equipped with LED projectors, faculty iMacs, and ample teacher storage and student work exhibition space, students having access to laptops and tablets within the classrooms as well when needed. To support learning, a brand new two story, lending library, theater stage, and science wet lab are part of the new building's features along with an outdoor eating terrace to compliment the indoor cafeteria space, new menu items such as large healthy salads now options to enhance faculty and student satisfaction in food options.

A.U.C. puts in a lot of effort to help teachers feel heard and to communicate school needs and expectations with all faculty. The open door policy for students applies equally to faculty who, at any moment, have ready access to Director and Assistant Director when questions arise or advice is needed. New faculty are assigned experienced faculty mentors who help guide new faculty in all ways needed while workshops are provided to educate teachers about technological resources such as Archie, Cinemath, or our online Gradebook. By dismissing students one hour early on Fridays (at 3:25PM instead of our typical 4:30PM), the Administration has deliberately built into the schedule a weekly hour for faculty meetings and professional development. Given the small size of the school, with around two dozen faculty members, all faculty meet together during this hour, allowing for the sharing of ideas, teaching and classroom management strategies, and observations between faculty from all disciplines and the administration and college counselors. Faculty feedback and input are encouraged by the administrators leading the meeting with the meetings welcoming debate and the sharing of opinions, knowledge, and questions. The student Trust Counselor to the students makes herself available to faculty in need of emotional support, guidance, or referral to other service providers as well should the need arise. The Parent-Teacher-Student-Organization (P.T.S.O.) also holds faculty appreciation breakfasts or lunches annually to enhance the feeling of appreciation. The Archimedean Schools Holiday party also encourages faculty bonding.

Faculty who feel in control and who feel that they are respected for their content knowledge and expertise feel more positive and approach their work with greater enthusiasm and ownership. It has been a deliberate decision to make teachers feel like leaders in their classrooms not just to the students but also the school leadership, administrators giving teachers significant say in how they teach and which textbooks and resources are selected to maximize student learning, barring data showing success in the end. This allows faculty to take greater ownership over students' results and learning gains and to adjust their approaches to teaching and student support depending on the needs and personalities of the students each year. Furthermore, teachers are hired to teach only within their area of expertise given their educational and career background, which the considerable amount of time spent ensuring that the teachers are able to teach the same courses yearly, allowing teachers to continue to grow stronger in their ability to deliver lessons

within a particular course effectively as they build upon their prior years of experience and removing the added stressors that can materialize when forcing teachers to constantly have to plan entirely new courses with each passing year or when asking instructors to teach materials they themselves do not feel in full command of.

Finally, Archimedean Upper Conservatory is enthusiastic about providing opportunities for faculty to take on additional student-centered projects in areas of personal interest that allow faculty to explore their personal passions more deeply, teachers hereby enhancing their sense of belonging and importance to the school endeavors, enhancing the feeling that they are leaving their own personal mark and making their own difference in the social, experiential, and emotional enrichment of our students. Several faculty, thus, volunteer as head coaches of academic teams across a multitude of disciplines, act as directors of creative artistic projects, or sponsor a variety of student enrichment clubs or student government, fundraisers, or community projects, faculty even supervising when interested student volunteer and community service initiatives.

## **2. Engaging Families and Community:**

Parents and families of A.U.C. students, in addition to alumni families and members of the Greater Miami community, are actively participating stakeholders. The greater the parent involvement, the easier it is to ensure students emotional and academic well being as well as college application success. As such, communication lines are kept open between all stakeholders, Archimedean personnel making themselves easily accessible to all while updates and information is regularly shared with the Archimedean community. Public college admissions presentations, for instance, are advertised to parents and students via our school-created “Archie” content management and mass emailing system so that parents can with the awareness and knowledge gained better support their children’s educational goals, dialogues can be opened up at home, especially among students whose parents are new the college admissions process in the U.S. or altogether, and the expectations for student and parent involvement in their all aspects of a student’s social, academic, and experiential growth can be shared. Equally, parents are called in for individual meetings with the administration, college office, and one or multiple faculty members whenever students performance is wavering or additional individualized education of parents is needed regarding their child’s progress or the college application and college financial aid application process.

Participation in the school’s regular presentations to keep parents informed of important information about curriculum, assessments, objectives, college applications, and educational outcomes has been very strong overall, typically two-thirds of the parents attending such functions. One of the first challenges identified was that a majority of the parents (and students) had very limited to no knowledge and understanding of standardized assessments, college admissions, financial aid opportunities etc. Given that A.U.C.’s main objective is to establish a strong college-bound culture, it was clear that the school needed to make educating not only our students, but also their parents about paths to, options, and complexities of higher education a top priority. From the very beginning we established a series of cohort/grade-specific presentations to parents and students through which we provided detailed information on all these topics. Additional technical meetings and presentations on standardized assessments (benchmarks, scores analysis, projections) and on financial aid add more to the education of parents and students. Meetings with each individual student and his/her family and the college counselors and/or the administrative team are held multiple times over the period of four years to provide personalized advice and guidance as needed. At this point, there is a lot of evidence that the Archimedean families, by the time the student reaches senior year, are much better educated about college options and how to get there. For example, in recent years, approximately 35% of A.U.C.’s graduates enroll to higher education institutions outside the state of Florida (compared to the 16% state average), while about 10% of A.U.C.’s graduates attend Liberal Arts Colleges (three times higher the national average).

It is clear to Archimedean that parents play a vital role in supporting their children and helping them reach their fullest potentials and in opening the greatest number of post-secondary educational doors of opportunity for their children. Because almost 80% of our families are Hispanic, some parents speaking little to no English, one to two faculty translators are always present should a parent need help in understanding the a presentation or meeting organized. Similarly, there is a push the last few years to send

mass emails in both English and Spanish to serve our families needs and keep all members better informed.

A.U.C.'s Administration maintains an open door policy, which results in parents, just as students and faculty, meeting with administrators and college counselors easily. Parental requests for meetings with the Administration are typically granted within 48-hours though in most occasions parents' "walk-ins" are accommodated too. All high school faculty and administrators' contact emails and the school's contact information are also accessible through our school website. A.U.C.'s faculty is also readily available to parents with most of the communication facilitated by emails. All college/trust/ESE counselors/specialists and administrators also speak Spanish and Spanish-speaking faculty and administrators are always willing to accompany teachers in meetings in the event the teacher does not speak the student's home language to facilitate communication.

The schools Educational Excellence School Advisory Council (EESAC) meets several times a year and is the sole body responsible for final decision making at the school relating to the implementation of the components of the annual School Improvement Plan. The EESAC, composed of representatives of all stakeholders includes member who represent the surrounding Miami community, parents, students, faculty, administrators, and student school support staff. This group of function is to bring together all stakeholders and involve them in an authentic role in decisions which affect instruction and the delivery of programs, and serves as a platform for share ideas and diverse perspectives on new initiatives that lead to the continual improving of the educational experience at Archimedean for our students. Annual school climate surveys, anonymously completed by students and faculty as well as the Archimedean parents collects feedback about the school's learning environment, campus facilities, faculty and leadership effectiveness, safety and more, the collective results being accessible by all so that improvements can be made based on overall parent input as well when and if needed.

In addition, parents support school objectives and enrich student life through different groups, the largest and most active being the Parent-Teacher-Student-Organization (P.T.S.O.) of A.U.C. The P.T.S.O. fundraises yearly to support school initiatives and student activities and is directly involved in the organization of several annual events, such as the Awards Ceremony, Greek Night, Junior Ring Ceremony, Senior Prom, Commencement Ceremony, and several faculty appreciation events. Smaller groups of parents coalesce in support of different A.U.C. academic and athletic teams by organizing fundraisers, events and trips, carpools for games, competitions, and conferences, and/or by providing their own personal resources and content expertise. Alumni, community members, and Archimedean families are all regularly invited to any formal school fundraising events such as our annual Greek Night festival, our 1K/5K Fun Run/Walk, our Archimedean Gala and more as organized, which allow for informal communication and bonding among Archimedean personnel and other stakeholders. Our Fall Luncheon welcomes back to campus every year around 50% of our alumni, who look forward to this event annually.

The Archimedean Greek Night, a festival of music, dances, food, and fun, brings together large numbers of Archimedean's current students and families as well as alumni, friends, school supporters, and the extended community of Miami as this fundraiser is open to the general public too. A large number of parent volunteers, along with school board members, administrators, and faculty, help with the planning and running of this event that takes place every year in early November and welcomes more than 3,500 visitors throughout the day and night! Parents, Board Members, and family members are similarly invited to the Annual Awards Banquet to celebrate student achievement in academics and character, and to welcome incoming freshman and celebrate graduating seniors.

Cooperative relationships with community organizations help expand the resources and support available to our students directly. Students are encouraged to engage in community service, ideally by committing their free time for several months, and even years, especially in the summer months, to helping make a positive difference in greater community through their engagement with community organizations and/or business locally, nationally, or even abroad, allowing the students to not only build additional interpersonal and leadership skills while exploring career aspirations, but to also nurture in students the importance of being proactive in improving their surroundings. Community organizations and individuals also engage in return to help students grow and develop healthily and with the support needed. For instance, the Miami Dade Police Department's STAND program liaison is readily available to give presentations to students as well

as parents on topics such as abusive relationships, prescription drug abuse, and driving while under the influence while representatives from the Yes Institute present to students on LGBTQ-related topics, enhancing communication skills, bullying awareness, and suicide prevention. Motivating and inspiring speakers, brought in by the College Office, teachers, the administration, or academic coaches, come to inspire students and give them insights into individual career paths. Guest speakers that enrich students' educational careers, for example, have ranged from college professors from local universities such as Florida International University as well as from distant institutions such as Dr. Massimino, NASA Astronaut and Professor of Mechanical Engineering at the Columbia University to Greek Olympic Sailors and representatives of the European Union.

Teachers regularly send emails home through Archie, Archimedean's online content management system, to communicate with parents as well as student in order keep parents abreast of student responsibilities, upcoming assignments, and/or class assessments, while all student graded work is posted securely into Miami-Dade's online Gradebook system, which is readily accessible online by all parents/guardians, who receive training on how to create and access parent accounts through P.T.S.O. workshops and at our annual Fall Open House where parents are invited to school to meet their child's teachers in order to establish the lines of communication and get informed about key aspects and expectations in each course their child is taking that particular school year. Besides our school website, which houses our school wide events calendar highlighting to families important state and national testing dates and other key school events and which is also rich in content about the school structure, curricular offerings, guidance office advice, and procedural information, the school also maintains three social media online sites as means of sharing student, faculty, and school achievement, accolades, involvements, and news with families and community members locally and around the world.

### **3. Professional Development:**

The professional development plan at A.U.C. is organized along two dimensions: a focus on content versus skill and pedagogy as well as in-house versus outsourced professional enrichment. The school's administration is responsible for deciding which activities are of top priority based on the faculty's evolving instructional needs and projected impacts on student learning. A designated faculty member serves as a district-school PD Liaison for Archimedean and is responsible for the organizing and logistics of such activities. The majority of the requests for specific professional development activities are initiated either jointly by a group of administrators and faculty or directly by a faculty member, all of whom are encouraged to seek out ways to continually improve in their craft. Additionally, through an annually designed School Improvement Plan, regular departmental or whole group faculty meetings, the Archimedean administration, and faculty engage regularly in data analysis to identify challenges and opportunities for growth with respect to teaching and learning. Often, resulting action items include decisions to seek particular activities for further development of skills in our teachers based on the identified needs. In addition, new educational research findings, as well as established best practices, are on the agenda in regular faculty meetings, generating ongoing interest for continuous education among the faculty. Outside formal group meetings, faculty members are strongly encouraged to regularly engage in self-reflection and data analysis, that often result in individual teachers identifying an opportunity or need for further development. Through MyLearningPlan teachers have ready access to PD workshops organized by Miami-Dade district, the accumulation of continuing education credits required for teachers to keep renewing their state teaching certificates every few years. Archimedean personnel working in student services and other student support areas also attend district meetings to keep up to date on trends, resources, and new developments.

Although all faculty at Archimedean have strong and adequate knowledge in the content area they teach given Archimedean's hiring practices, there is occasionally a need or opportunity to acquire additional knowledge. For example, when the school decided to develop certain programs for academic competitions (namely Model United Nations, Science Olympiad, VEX Robotics, etc.), in order to quickly develop the capacity of certain faculty members to coach these teams, a number of multi-day workshops were identified, some here in Florida and others as far as Pennsylvania and Arizona, our faculty and prospective coaches attending. Such immediate responses to obvious needs to better support our new academic programs are readily supported, given the great successes these teams have had, these workshops

considered good investment of time and monies.

The majority of the professional development activities sought so far regards pedagogy, the development of teaching and assessment strategies, skill-building related to particular courses, the use of instructional technology, and/or standardized exam preparation. Given that a significant number of our faculty members are not graduates of a School of Education, but other schools, such as Engineering, Arts & Sciences, Medicine, etc., it is deliberate strategy of A.U.C. to provide our faculty with continuous opportunities to develop a set of skills that further enhances their effectiveness in the classroom. The sources of such professional development are diverse. Upon initiating our Greek immersion program, Greek faculty lacking the experience of such language-learning approach attended summer institutes on language immersion at the Center for Advanced Research on Language Acquisition at the University of Minnesota. Subsequently, as our students started participating in standardized Greek Language attainment exams, a new challenge to both students and teachers, our faculty participated in long-distance online and summer workshops provided by the Greek government, the Centre for the Greek Language, and the University of Crete.

Although Archimedean's record in the AP examinations has been impressive year after year, faculty members do not all enter their position having prior experience teaching these college-level courses and knowing how to prepare students adequately for these specific College Board exams. To facilitate a strong performance, besides strong content knowledge and hours of planning, A.U.C. proactively invests in teacher participation in the Summer Institutes organized by College Board, not only in South Florida, but elsewhere in the U.S. as well and in the one- or two-days refresher workshops offered during the school year organized by College Board and Miami-Dade's school district. Institutions like College Board provide our faculty and administrators with the necessary tools to better align our content knowledge and lesson plans to the objectives and expectations set for the AP exams, skills acquired saving non-AP courses as well. It is standard practice at Archimedean for every faculty member new to the AP program to attend a Summer Institute while experienced members attend every 4-5 years or every time there is a curricular revision of an AP course so they stay current with all the content developments, new ideas, and updated approaches.

In order to help less experienced faculty better understand the needs of our ESE population, the online services of Beacon Educator are employed as a platform for virtual PD delivery. At Archimedean, there is no achievement gap between our regular and ESE populations in part due to quality professional development of faculty. When necessary, experienced district personnel are utilized to deliver additional PD to our teachers directly as well. Earlier this year, in faculty meetings discussing the high curricular standards we set for our students, it became clear that the faculty would benefit from additional training in higher-order thinking and deductive reasoning. It was not difficult to identify a workshop on this topic offered by through Miami-Dade district, Archimedean's PD liaison arranging for a workshop to be provided on school grounds over two teacher planning days. Even teachers who acquired new knowledge and skills through research, study, and individualized PD, are encouraged to organize workshops to disseminate what they have learned and what they have received positive feedback on in their classrooms with their fellow coworkers. In addition to faculty PD, the school's administration regularly attends webinars as-needed too on a wide spectrum of topics from student motivation, social media related anxieties, and effective communication with parents to teacher evaluation tools, grant writing, and instructional technologies, sharing such knowledge with the teaching staff when useful.

In addition to the abundance of sources for professional and growth, one undeniable easily accessible source is the faculty itself. Besides the sharing of best practices as a regular item in the agenda of A.U.C.'s general faculty meetings, the school organizes a rotation plan in which a teacher spends time observing several class sessions of another teacher, keeping notes about teaching strategies, student behavior and engagement, classroom management etc. At the end of the rotation the two teachers meet and reflect on what was observed. In order to maximize the benefits of this in-house professional development activity, rotations are arranged both horizontally (a teacher observing his/her students during a different class) and vertically (a teacher observing students he/she does not teach during a class in the same discipline as his/hers). Given the small faculty size, smaller school size, and shared teacher lounges and work/dining spaces, information and advices between faculty are often informally shared as well during daily conversation enhancing teachers' skill set and teaching approaches.

#### 4. School Leadership:

The core leadership team of the Archimedean Upper Conservatory consists of the School Board and the school's Director and Assistant Director. The members of Board are all unpaid volunteers, highly committed to the mission and vision of the school. The Board's responsibilities include providing strategic planning and guidance to the school according to its mission, oversee the school's management and budget, and ensure that proper accountability systems are in place. Almost all Board members are parents of Archimedean students or graduates, and several of them have been on the Board since Archimedean Schools inception in 2002. The responsibilities of the school administrators include curriculum development, assess instructional methods and student learning, evaluate faculty and staff, provide a safe learning environment, develop a growth-oriented learning community for the faculty, establish and maintain open communication channels with the parents, and seek partnerships with community members and organizations for the benefit of student learning and development. The Director and Assistant Director of the high school themselves joined the Archimedean Schools project in 2002 and are the founding administrators of the Archimedean Upper Conservatory. This long-lasting, collaborative working relationship, along with the shared belief that a top-quality public education is not only important for a student's personal growth, future happiness, and life fulfillment, but also a powerful medium for social upward mobility, has informed a robust philosophy and a strong culture of striving for excellence and to open doors of opportunity for students among all leadership members. All decisions are taken by putting student learning and educational outcomes as the top priorities.

One exemplar of the school's coherent leadership philosophy of dedication to student learning is the volunteer roles most leadership members have assumed over the years. For example, the President and Chair of the Board is also an unpaid volunteer teacher of mathematics and coach of the school's Science Olympiad team while yet another member of the Board is an unpaid volunteer coach of the school's Mathematics team. Other enthusiastic yet unpaid volunteers include the school's Chief Executive Business Officer who also serves as a Science Olympiad coach, the school's Director who is a teacher of mathematics and the coach of the mathematics team, and the Assistant Director who is a teacher of English and World Languages and the leader of the school's various fundraising committees, and more. This high level of commitment and volunteerism, the shared commitment to changing the future of the world for the better one student at a time, has been impacted by the leadership team on the faculty, students, parents, and community members, generating a strong sense of belonging to a family, the Archimedean family, a phrase often heard in our halls.

It has been a strategic and conscious choice to invest most of the resources towards instruction, resulting in a smaller percentage, compared to most American schools, of the budget allocated towards administrative costs. This strategy has contributed significantly to Archimedean's educational outcomes. Additionally, one of the greatest accomplishments of the school's leadership is that, as of 2015, the school, and, therefore, all stakeholders, acquired ownership of a percentage of its campus and facilities, including a brand new secondary school building delivered in August of 2017, thus joining a minority list of such charter schools across Florida and the U.S. It is expected that this will have a long-lasting positive impact on the growth and longevity of the school, and in maintaining its high standards for educational excellence. It also further exemplifies the school's culture of community and family, allowing the school to be proud that, besides providing a public, tuition-free, top-level education to its students, its campus and facilities belong to the families we serve, the public we cooperate with, and to all Florida taxpayers who allow for our existence.

Regular, biweekly Board meetings, monthly administrative layer meetings, weekly faculty meetings, along with the use of appropriate evaluation and continuous improvement plans, ensure that school policies are followed, programs are implemented with fidelity, best practices are shared, and new research-based strategies are adopted. The school has adopted a flat hierarchical model, operating without department chairs or other middle-level administrators. All faculty members are considered experts in their domain, participate in different leadership structures (for example, the School Advisory Council that is responsible for the development and monitoring of an annual improvement plan and for institutional advancement) and regularly engage in data analysis and curricular decisions.

Every time the school has made a modification to its curriculum (for example, the adoption of the Physics-

First science curriculum or the designation of the Advanced Placement Statistics as a core mandatory course junior year), made modification to its operation (adoption of a later, 8:30AM, school starting time as informed as healthier for students by scientific research), or introduced a new academic or extracurricular program (Computer Science studies and competitive Robotics endeavors), the objective has been to further improve student learning and educational outcomes. In each of these cases, the school's leadership has engaged all stakeholders (students, faculty and staff, parents, and the community) in discussing the reasons, benefits, and implementation of the proposed changes.

## **Part VI – STRATEGIES FOR ACADEMIC SUCCESS**

---

High achievement cannot be attained without an environment that fosters, encourages, and maintains high expectations, a major contributor to A.U.C.'s success. At Archimedean Upper Conservatory, the demand for excellence permeates all activities inside and outside the classroom. Students follow a non-negotiable, deliberately rigorous, unique, and balanced academic core curriculum, rich in opportunities to delve deeply into challenging and complex material, the mandatory bilingual and balanced academic program aiming to open students' minds to new ideas and connections, teach critical and creative thinking skills, develop strong and essential academic and study skills, and foster an appreciation for lifelong learning. Archimedean strives to academically challenge every student regardless of initial academic level upon entering the high school by offering a large selection of rigorously taught honors and Advanced Placement courses. In addition to the courses offered in house, students are also encouraged to explore further academic interests through additional Dual enrollment and Florida Virtual School classes.

Inside the classroom and school walls data analysis drives administrative planning, professional development, student class assignment, and faculty teaching strategies, keeping the delivery of a quality, deep, rich education strong, AUC's policy against grade inflation and the banning of extra credit as a means of padding grades putting greater emphasis on the teacher and student's responsibilities toward growth and learning gains without allowing for superficial and incomplete knowledge acquisition or the mere appearance of mastery.

Quality co-curricular opportunities for student enrichment and the exploration of interests foster curiosity about the world, the desire to learn beyond the classroom curriculum, and the desire to keep applying the knowledge and skills mastered. To this extent, A.U.C. has made a bold commitment to participating in numerous academic competitions throughout the sciences, mathematics, social sciences, robotics, and more, establishing a remarkable tradition of success in tournaments such as Science Olympiad and History Bowl at the Regional and State levels, this year's Science Olympiad team being the state Champions, both Science Olympiad and History Bowl teams once again representing Florida, as they have for several years prior, at the National level competitions. Success is addictive and stimulating. Soaking in the supportive, collaborative, yet competitive spirit nurtured at A.U.C., the students desire to push past perceived ceilings and reach higher continues to expand. Our Debate team, for instance, has been strengthening yearly, participation throughout the state and even beyond Florida's borders in prestigious conferences, here too students amassing yearly an impressive array of plaques and recognitions for excellence. Certainly, the school will continue to support in all ways possible, emotionally, physically, and financially as much as possible, student competitive involvements depending on student and faculty interest as a venue for the creation of lasting and character-shaping memories and experiences, students being forced to learn through their competitive involvements about how to win gracefully, how to acknowledge excellence humbly and admirably in competitors, and how to lose while exemplifying good sportsmanship, aspects of competition that coaches make a point to emphasize. High expectations are set for character as well.

Offering a clear and definite college preparatory curriculum, the focus is on striving to prepare students for entrance into and success at even the most prestigious universities and not just on graduating high school, students being encouraged, however, to put effort into the research of the colleges and universities they apply to in order to find institutions that would be a "perfect fit" for the student given his or her interests, character, and career goals. With a graduation rate repeatedly of 100%, all students continuing on to complete further post-secondary degrees after graduation, the focus is on supporting students so they can best achieve success post high school. We remain proud of the fact that 96% of our graduating seniors earn admission into a four-year college or university, impressive given our majority minority student body in which over 50% of families qualify for Free and/or Reduced Lunch and a majority of students will be first-generation college students, 70% of A.U.C.'s seniors earning admission into Tier-1 colleges or universities, as ranked by U.S. News & World Report, over 20% earning admission to some of the most selective and prestigious post-secondary institutions ranked as the Top 25 in the nation. Expecting more from stakeholders than they initially may expect from themselves pays off.