



Courses Descriptions by Academy:



B.R.Ai.N.S *Academy*
We prepare the next generation of Computer Scientist!

Academy Catalog

Summer 2021



Courses Descriptions by Academy:

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Courses Descriptions by Academy:

ThreeK – 1st Grade Program:

Age / Grade	Motor Gross	Fine Gross	Visual-Spatial	Literacy Skills
3 / 3K	<ul style="list-style-type: none"> - Throws a ball to an adult standing five feet away - Runs without falling - Rides tricycle-using pedals, unassisted by an adult. 	<ul style="list-style-type: none"> - Can draw a circle after being shown an example - Can cut a piece of paper in half - Can fasten and unfasten large buttons 	<ul style="list-style-type: none"> -To build spatial vocabulary with words like "above," "below," "next to," "inside," "outside" and "through." Toddlers spend most of their time exploring the world, and as they do, they develop their spatial skills. 	<ul style="list-style-type: none"> - Two to three word combinations within social contexts, and implemented dialogic reading or effective shared reading for young children with dual- language development
4 / Pre-K	<ul style="list-style-type: none"> -Walks upstairs by alternating feet -Runs smoothly with changes in speed -Catches a ball with arms and body 	<ul style="list-style-type: none"> km-Can touch the tip of each finger to the thumb -Can use a fork correctly -Can get dressed and undressed without help 	<ul style="list-style-type: none"> - Experience Leads to Learning - Working With Blocks - understands the concept of space in a larger setting as it relates to himself and others - finding the way from one place to another, recognizing geometric shapes 	<ul style="list-style-type: none"> -Dual language instruction (phonics, vocabulary) linked to the book reading, and such books should include rhyme, alliteration, and repetitive phrases. -Ask questions and elaborate on observations.
5 / Kinder	<ul style="list-style-type: none"> -Hops on one foot Performs jumping jacks and toe touches -Walks up and down the stairs while carrying objects -Catches a ball with two hands 	<ul style="list-style-type: none"> - Grasps a pencil correctly - Copies a triangle shape - Can cut out a circle -Ties shoelaces 	<ul style="list-style-type: none"> -To create an awareness of the body in space, and the child's relationship to the objects in space. - Children are more aware of their body and are less egocentric 	<ul style="list-style-type: none"> Initial reading, writing and decoding), learning the relation between letters and sounds and between print and spoken words.
6 / 1st Grade	<ul style="list-style-type: none"> -Jumps over objects 10 inches high -Rides a bicycle with training wheels -Throws with accurate placement -Kicks rolling ball 	<ul style="list-style-type: none"> - Builds a small structure with blocks - Can put a 16 to 20 piece puzzle together - Uses a knife to cut food - Cuts well with scissors 	<ul style="list-style-type: none"> - Positional vocabulary and use it with their bodies, they develop spatial awareness. - To develop an understanding of direction, distance, and location. 	<ul style="list-style-type: none"> Read simple, familiar stories and selections with increasing fluency. Consolidating the basic decoding elements, sight vocabulary and meaning context in the reading of common topics.

BRAiNS Academy 3K -1st grade develops your child’s gross (skills which involve eye-hand coordination) and fine motor skills (hand-eye coordination) and their Visual-Spatial Memory (the capacity to understand, reason, and remember) the spatial relations among objects or space.

**Children with neurological problems, developmental delays, or disabilities that affect movement may receive physical and / or occupational therapy to help with gross motor skills. Our Occupational Therapists focus on the developmental milestones and the skills they need for school and play. Activities that might improve fine motor skills*



Courses Descriptions by Academy:

Philosophy and Theory:

Discovery to Abstract

In 3K and Pre-K, we offer a thematic, hands-on, comprehensive, culturally relevant and content-rich curriculum that builds skills in an environment filled with curiosity and mutual respect between teachers, students, and one another. We focus on instilling intellectual curiosity as early as possible and challenging students instill as exposed to new concepts and learn how to set and reach goals individually and as a class. Our *BRAiNS Academy* curriculum offers an impressive array of courses that foster early numeracy, literacy, and awareness of the many ideas and topics to explore. Students learn through developmentally appropriate play, music, and exploratory activities to help make any high level material more accessible.

The *BRAiNS Academy* curriculum include:

- Social & Emotional Development and Self-Care Skills
- Language & Literacy
- Math Discovery
- Expressive Arts: Art, Music & Drama
- Arabic/ English / French/ Mandarin / Russian
- Movement
- World Discovery
- STEM Discovery

Our kindergarten and first grade program focuses on learning that is more formal. At BRAiNS Academy, we thrive by using The [Orton-Gillingham](#) Approach as a direct, explicit, multi-sensory, structured, sequential, diagnostic, and prescriptive way to teach literacy when reading, writing, and spelling does not come easily to individuals, such as those with dyslexia. This facilitates a rapid transition from a focus on foundational skills and knowledge to independent thinking, active learning, and application of knowledge by emphasizing connections between disciplines and reiteration of key concepts throughout the curriculum.

Curriculum facilitating opportunities for children to interact with academic, physical, and social concepts in goal-oriented activities throughout the day. The curriculum helps students develop their literacy and math skills, gives those students opportunities for plenty of movement and exercise, and connects what they know about their environment to new ideas in civics, science, and history. We have learned that children thrive on academic challenges, so our kindergarten students work toward mastering first grade skills, leaving them with an incredibly strong foundation to work from by the end of the year.



Courses Descriptions by Academy:

Courses Include:

- Math
- Civics, History & Science Foundation
- Language & Literacy
- Movement Foundation
- Engineering Foundation
- Visual Arts Foundation

- Performing Arts Foundation
- Kinder / First Grade Enrichment
- Students learn in their home language with additional support to learn a 2nd language of their choice:

*Arabic / English / French / Hebrew /
Mandarin / Russian / Spanish*

Outcomes & Milestones

Building curious, inquisitive students from the moment, they step into our classrooms.

At the beginning of each year in Pre-K and kindergarten, teachers issue a syllabus that includes an overview of the topics covered in their class. Beyond subject-specific goals centered on academics and social-emotional readiness to progress to the next grade, students in our Early Learning Program will:

- 1) Feel empowered by their curiosity and willingness to learn
- 2) Have opportunities to experience victories and milestones, such as fine motor skills, social-emotional and self-help skills, and phonological awareness
- 3) Broaden their understanding of the classroom environment and learn to make connections to their home and other outside environments
- 4) Get the best start to their academic journey as well as the means to make a seamless transition into future grade levels

The Primary Years curriculum emphasizes the connection between students' seemingly discreet subjects of humanities, math & science, engineering, performing arts, music, Mandarin, fine art, and physical education. Students even have a dedicated weekly 85-minute period called "Connections," a scenario-based, hands-on learning experience designed to fuel creativity, ingenuity, and social skills like team work and patience.

***In grades 3K- 2, students complete a rigorous schedule in all core disciplines, designed under the principles of [Orton-Gillingham](#) multi-sensory development approach. Students can select a secondary to learn in, either English or Spanish language beginning in grade 6 or a third option of foreign language option in grades 7 and above. The curriculum is essential and highly apparent in these grades, particularly regarding the revisiting of concepts in the sciences in greater depth with each passing year, as students prepare for entry into Honors or Advanced Placement® (AP) level coursework starting in grade 6.*

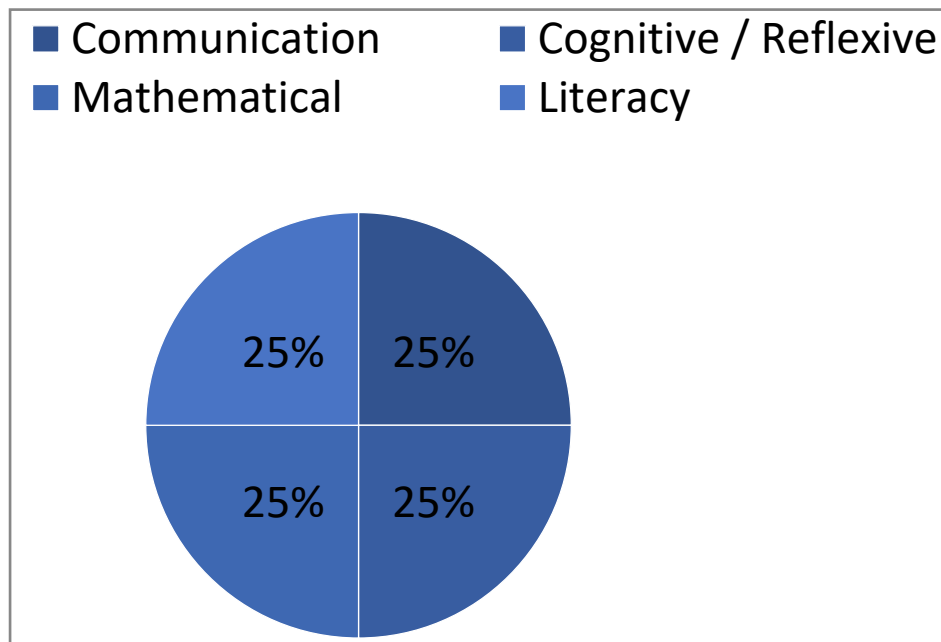


Courses Descriptions by Academy:

2nd - 6th Grade Program

Our programs are catered to your child's abilities in the following skills; vocabulary, print motivation, print awareness, narrative skills, letter knowledge and phonological awareness

Our foundational programs prepare your child 'mind for world inquiry. The child's individual abilities are enhanced, while at the same time developing other skills to be able to compete in a global education system and career market.



We develop their foundational skills in STEAM: Science, Technology, Engineering, Arts, and Math.

We tackle the foundational and applied knowledge and enhance the Communication (refers to the knowledge of effective and appropriate communication patterns and the ability) to use and adapt knowledge in various contexts. Mathematical Competence is the ability to develop and apply mathematical thinking in order to solve a range of problems in everyday situations.

Literacy Competence includes different kind of skills such as reading, writing, processing the information, ideas and opinions, decision-making and problem solving.

Reflexive competence is a person's ability to integrate actions with the understanding of the action so that the person can learn from those actions and adapts to the changes as and when they are required. Cognitive competences refers to the cognitive processes that comprise creative thinking, which includes various creative thinking styles, such as legislative, global, and local thinking styles; and critical thinking, which includes reasoning, making inferences, self-reflection, and coordination of multiple views.



Courses Descriptions by Academy:

Philosophy and Theory:

From Abstract to Concrete Thinking

Students support takes on a variety of forms. From student hours and one-on-one support with Deans to the independence cultivated in the Primary Years, that inspires in students a greater sense of responsibility for their education.

The grade 2-6 curriculum differs from the primary program in the following: the spiraled curriculum features classes that are 50 minutes long, with humanities breaking into English and history, and math & science taught separately. In grade 5, Academic Enrichment introduced, offering students time during the day to approach teachers with questions and work independently on homework. In addition to core disciplines, coursework includes classics, two science classes, and Latin.

Together, the Bridge Years transport students from their foundational years to an intermediate program focused on mastering basics necessary for an advanced curriculum. Students prepare for the cadence, rhythm, and challenge the curriculum to come. Instruction focuses on attaching abstract thinking to concrete thinking: student's transition from reading comprehension to interpretation, from data collection to data analysis, and from mathematical calculation to mathematical reasoning. Students in every class particularly focuses on building independence and self-reliance as students prepare for grades 6 and up.

Courses Include

A curriculum designed to inspire connections.

- The individualized unique curriculum of the program is rooted in coursework in the liberal arts and sciences. It emphasizes connections between all the disciplines offered at our Specialty school. As such, in grades 2–4, math and science together, are taught in a daily 85-minute block, a daily 90-minute humanities block covers topics from history, culture, civics, grammar, and more. Students also have a full schedule in the arts, with weekly 90-minute classes in fine arts, music, and performing arts. The curriculum helps students discover new ways of thinking and understanding the world around them through courses such as engineering and Arabic / or English/or French/or Hebrew /or Mandarin /or Russian / and/or Spanish.
- With coursework in classics, physical geography, math, English, performing arts, and more, Grade 5 bridges the concrete thinking and material in the younger grades with the abstract thinking that is expected of students in grades 6. For example, students' course in Intro to Science helps them become fluent in the scientific method and units of scientific measure, preparing them to excel in disciplinary sciences.
- Grade 6 is a year of transition from making connections in class to building the skills to make connections organically. Classes have shorter class period model seen in upper grades. Instead of the primary Math & Science course, students have separate classes for these disciplines. Similarly, English and history taught as distinct subjects, along with engineering, languages, performing arts, visual arts, music, and physical education. Break Room is introduced this grade, which offers students time to work on questions, get a start on homework, and review material.



Courses Descriptions by Academy: **Outcomes & Milestones**

Each major topic within a course is “spiraled,” or readdressed, throughout the grade levels with each re-introduction increasing in complexity and reinforcing previously learned subjects. A clear example of this is in mathematics, where, for example, the learning of simple addition and subtraction facts made more complex by adding multiple digits, then growing into complex multi-step word problems, all the way to the highly advanced math in the High School Program. Above all, our program in the Primary Years designed to stoke the fire of a love of learning in students in an exciting period of their educational journey.

Middle school is a time for building strong foundational knowledge in a wide variety of subjects *and* building the student autonomy and self-discipline necessary for critical inquiry. After a focus on the fundamentals and highlighting the interconnectivity between their subjects in the Primary Years, the middle school curriculum encourages students to discover and make connections organically through coursework in three different sciences (biology, chemistry, and physics), Latin, logic, economics, world history, and more. It is in middle school where students discover how powerful their knowledge is.

Rooted in science and technology, the BRAiNS Academy Curriculum is one of the most robust programs available at the middle school level in the world.

****In grades 2-6, students complete a rigorous schedule in all core disciplines, designed under the principles of [Universal Design Learning \(UDL\)](#). Students can select an elective beginning in grade 6 and a third option of foreign language option in grades 7 and above. The curriculum is essential and highly apparent in these grades, particularly regarding the revisiting of concepts in the sciences in greater depth with each passing year, as students prepare for entry into Honors or Advanced Placement® (AP) level coursework starting in grade 6.*

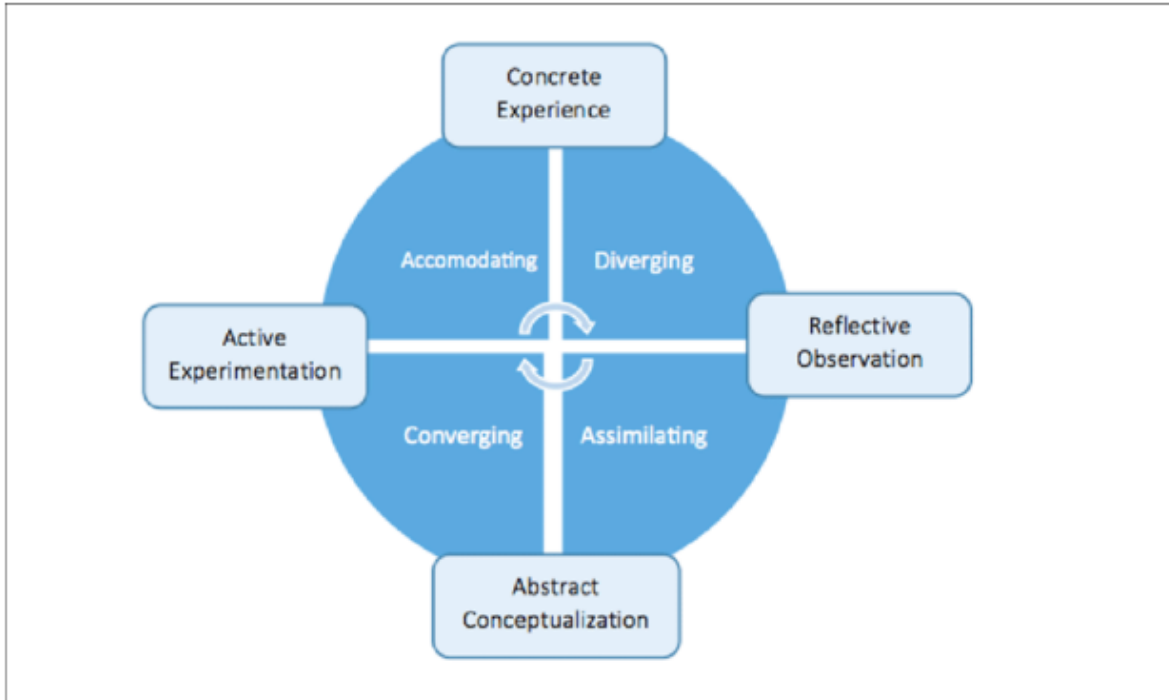


Courses Descriptions by Academy:

7- 12th Grade Program:

7- 12th and A.S. or A.A.S Middle and High School Programs:

BRAINS Curriculum in the High School Years is unmatched in breadth and depth through [Experiential Learning](#) we offer students unprecedented exposure to high-level content and the creative, critical thinking opportunities typically reserved for university-level studies. Under the guidance of passionate teachers deeply invested in their success. As individual students and global productive citizens to gain the best possible preparation for college and/or the global market to acquire skills and habits that stay with them long after graduation.



Kolb's Experiential Learning Theory. Adapted from *Experiential learning: Experience as the source of learning and development*, by D. A. Kolb, 2014, Upper Saddle River: Pearson. Copyright 2014.



Courses Descriptions by Academy:

Philosophy and Theory:

Concrete through Experiential Learning

Our students learn with the theory of cognitive psychology problem solving which refers to the mental process that people go through to discover, analyze, and solve problems. Problem solving cannot occur, until we first understand the exact nature of the problem itself. Through this understanding and cognitive thinking, students integrate their learning through the theory of [experiential learning](#) in the classroom and the real world. Our programs engage students with the world through professional work, research, and service around the world. They learn how to transform ideas into impact and become global citizens with successful careers.

Biology Program: Full rounded curriculum with a lens on biology. Student will see the world through nature's eyes. There are three major branches of biology – botany, zoology and microbiology. Botany is the branch of biology, which deals with the study of different aspects of plants. Biology plays an important role in the understanding of complex forms of life involving humans, animals and plants. Biology helps individuals understand the interaction between humanity and the world. It also develops interests in the lives of living organisms in an effort to preserve them. This program uses touches on all natural and physical sciences to learn about our world.

Robotic Program: Full rounded curriculum with a lens on Robotics to helps address the growing demand for teaching science, technology, engineering and math is in schools. As well as exemplifying technology directly by programming the robot, students also learn about science, engineering and math is and get an understanding of how these subjects link together. Robotics is a branch of mechanical engineering, electrical engineering, electronic engineering and computer science. It deals with the design, construction, operation, and application of robots, as well as computer systems for their control, sensory feedback, and information processing.

Artificial Intelligence Program: Full rounded curriculum with a lens on Artificial intelligence (AI) is the ability of a computer program or a machine to think and learn. It is also a field of study, which tries to make computers "smart". Artificial intelligence is used in many sectors such as transportation, finance, healthcare, banking etc. Artificial Intelligence application can serve in almost any Sectors right from suggesting information to even in your banking transactions. Impact of AI -which allows the machines to exhibit intelligence

Nano Science program: Full rounded curriculum with a lens on Nanotechnology is the understanding and control of matter at the nanoscale, at dimensions between approximately 1 and 100 nanometers, where unique phenomena enable novel applications. Nanotechnology is a part of science and technology about the control of matter on the atomic and molecular scale - this means things that are about 100 nanometers across. Nanotechnology includes making products that use parts this small, such as electronic devices, catalysts, sensors, etc.



Courses Descriptions by Academy:

Social Science Program: Full rounded curriculum with a lens on the social sciences. The subject explored in this program are Anthropology, Archaeology, Economics, Geography, History, Law, Linguistics, Politics, Psychology and Sociology. Social science as a field of study is separate from the natural sciences, which cover topics such as physics, biology, and chemistry. Social science examines the relationships between individuals and societies, as well as the development and operation of societies, rather than studying the physical world.

Outcomes & Milestones

In grade seven biology, homeostasis is further studied in diverse systems of life on earth.

By grade 8 biology, students expand their knowledge as they focus on how genetic mutations and cancers affect homeostasis at the cellular level.

In core disciplines, Honors is the minimum level offered, with a large percentage of courses taken at the Advanced Placement (AP) level. Many schools reserve AP courses for their top performers' final years in school, but we require AP coursework—six AP exams and seven AP courses—of all students and make them available starting in grade 7. Students further develop their ability to think and work independently in post-AP courses and independent research projects. They also participate in a yearlong, daily college counseling seminar in their senior year designed to help them find the right school and ready their applications.

The senior year culminates in a 6-month, off-site Senior Project, proposed and constructed by students under the guidance of an internal faculty adviser and an external professional specialist in the field of the student is choosing. Students apply their academic content knowledge in a professional or research setting and demonstrate individual accountability and a facility with problem solving. BRAiNS Academy graduates leave our program prepared to be leaders in college and in the global market.

****In grades 7-12, students complete a rigorous schedule in all core disciplines, designed under the principles of [Experiential Learning](#). Students can select an elective beginning in grade 6 and a third option of foreign language option in grades 7 and above. The curriculum is essential and highly apparent in these grades, particularly regarding the revisiting of concepts in the sciences in greater depth with each passing year, as students prepare for entry into Honors or Advanced Placement® (AP) level coursework starting in grade 6. By grade, 11 and 12 students will be training in their field of experience conducting internships. These students will be graduating with 1-2 years of work and training experience before graduating High School.*



Courses Descriptions by Academy:

BRAiNS Special Education Program Descriptions

*The variety of special education programs offered at BRAiNS Academy has a **MAXIMUM CAPACITY of 50 students**. Each program has a maximum cap of 20 students or less. Student enrolled in this program evaluated by the BRAiNS academy medical staff for placement in the most appropriate program to meet the needs of the students. *All of our special education programs use the Orton-Gillingham teaching approach and methods www.ortonacademy.org*

BRAiNS Basic Life Skills

BBLS

The BRAiNS Basic Life Skills program is a therapeutic program designed to meet the needs of students who have a variety of concerns. The program focuses on developing functional academic skills, activities of daily living, communication, and social needs. Students in this program often have a variety of related services, with the goal of meeting all of their unique needs. The student-teacher ratio in this program is exceptionally low as 9-1-3-3 (3 students, 1 General Education Teacher and 3 Special Education Teachers, 3 nurses/nurse's assistant), with some students needing the added support of a teacher assistants to provide the access skills necessary to gain meaning from the curriculum. This full capacity of this program is three classes for 18 students.

BRAiNS Bridges Program

BBP

The Bridges Program at BRAiNS Academy is a therapeutic program to meet the needs of non-verbal student population. Bridges addresses a variety of skills, with a focus on independence and social skills, particularly in communication. The students in this program navigate all of the challenges of elementary, middle and high school, with the support of caring staff and accommodations, when necessary. With integrated communication devices, your child can learn to communicate and help them reach their SMART progress goals in their catered individualized education plan. This therapeutic program has a student-teacher ratio in this program is exceptionally low as 1-1-1-1 (1 students, 1 Special Education Teacher, Speech Therapist and 1 nurses assistant). This full capacity of this program is two classes, for 12 students.

BRAiNS Behavioral Adaptive Program

BBAP

Students in the BRAiNS Behavioral Adaptive Program primarily have behavioral, social and/or emotional difficulties that prevent them from accessing the general education program. Students work to develop the self-monitoring skills necessary to become successful in the general education setting. Counseling is an integral part of this program. The students work with the counselor individually and in small groups depending on their needs. The Behavior Adjustment program provides a highly structured learning environment using behavior management strategies to foster personal growth for each child in the program. Student / Teacher ratios in these programs is to a 10:1:1:1 level. (10 students, 1 General Education Teacher, 1 Special Education Teacher, 1 Behavioral Specialist and 1:1 Nursing Assistant *when need*) This full capacity of this program is two classes for 20 students.



Courses Descriptions by Academy:

BRAiNS Integrated Academic Program

BIAP

The Integrated BRAiNS Academic Program works primarily with children who can access the general education curriculum with modifications and adaptations. Students have opportunities to receive their instruction with their typical peers as well as with the Special Education teacher. The Integrated BRAiNS Academic Program (IBAP) provides educational experiences for the student with moderate learning difficulties and/or minimal social/emotional difficulties who is likely to attain the academic, social and/or vocational skills necessary for success, but who cannot maintain the pace of a traditional school program. Student will be part of the General Education program at BRAiNS Academy with moderate to mild special education services provided to them in a case-to-case basis. These students while having some difficulty to progress in their education, but will benefit to be part of a program with typically developing peers. This program creates a social / emotional SMART plan to couple with their Special Education Plan to allow students to be able to allow growth in the psycho-educational development. The student teacher ratio in this program 15:1:1 or 20:1:1 (**depending on enrollment*). This program serves ten classrooms, composed of 15-20 students, 1 General Education Teacher, 1 Special Education teacher.

BRAiNS Research Break Room

BRBR

All special education placement that has the purpose of supplementing the regular classroom instruction. The program addresses each student's academic, social, physical, and management needs. The goals of the resource room are to:

- Strengthen each student's skill deficit areas
- Access the regular education curriculum
- Help each student attain success in school

This resource is available in all programs in each of the elementary schools, as well as in the middle and high school. This room is available for all students with priority to the students in our special education program to be able to serve them when they may need a break from regular instruction or a moment to reconcile their cognitive and emotional skill in a balance. This allows students to recollect their spatial abilities and be able to have an integration back to their daily educational program. Students work with faculty and medical staff (phycologist, social workers, nurses and nursing assistants) to serve our students. Students can get referrals to participate in a session of art therapy, sports therapy, talking sessions (individual or in a group) or independent study.



Courses Descriptions by Academy:

A.S. or A.A.S Middle and High School Programs:

Philosophy and Theory:

Field Experience and Practice

Program partnerships allows students to take college courses online. Our partnership with Colleges / Universities and Business around the world allows our students to achieve 60 college credits and internships before graduating high school and participate in their online college programs. Students granted an Associate's Degree to be able to integrate in to a 4-year college institution in The US, Canada, Mexico or the Caribbean. Students can also use their 2-year college degree to expand their skills in the global workforce. We work closely with the college boards of these countries to be able to give our students opportunities not offered by any other school in the Dominican Republic or boarding school in the world.

Associate of Arts (A.A.)

Associate of Arts (A. A.) is typically set up for completing foundation coursework necessary for a four-year (bachelor's degree) or transferring to another college or university.

Associate of Applied Science degree (A.A.S.)

Associate of Applied Science degree (A. A .S.) is a two-year degree that meets requirements for specific skill sets in the workplace.



Courses Descriptions by Academy:

Institution Accreditation (TBD)

- 1) <https://www.asicuk.com/downloads/>
- 2) <https://www.cois.org/>
<https://www.cois.org/for-schools/international-accreditation>
- 3) <https://www.wes.org/>
- 4) <https://travel.state.gov/content/travel/en/us-visas/business.html>
- 5) <https://www.americanboard.org/international-school-accreditation/>
- 6) <https://www.acswasc.org/schools/international/>
- 7) <http://www.accsc.org>
- 8) <https://accet.org/>