ACADEMY After HOURS
...thinking for the future...

2023 IN-PERSON Academic Full Day Summer Camp

Grades 6-8

July 10-21, 2023
8:30 am - 3:30 pm

Select one two-hour class from each session to create your daily schedule for a total of six hours of daily instruction

@ Bergen County Academies
200 Hackensack Ave, Hackensack NJ

www.bergen.org/aah

Before and aftercare available for extra charge

REGISTER NOW @ www.bergen.org/aah

Enrollment Fee $1300

About Us

The Academy After Hours program is an outreach initiative geared toward students in Bergen County and beyond seeking to pursue advanced work in the sciences, humanities, mathematics, technology, visual, performing and culinary arts. Our AAH courses are available to all students with skills and abilities that fall within the middle school range (grades 6-8) and are taught by our accomplished faculty members. Each course is designed for an optimal student-to-teacher ratio, and is filled on a first-come, first-served basis.

JOIN Academy After Hours TODAY!

To Register ⟶ www.bergen.org/aah

✉ aah@bergen.org   🅕 @aahours   📷 @academyafterhours

Course Descriptions

Mock Trial

Do you love legal dramas? Gain a better understanding and appreciation of the American legal system by engaging in a simulation of either a criminal or civil law case in the Mock Trial course. Students will develop and refine listening, speaking, reasoning, and analytical skills by preparing both the defense and prosecution positions of an assigned case, assuming the roles of witnesses and lawyers, and enacting a mock trail.

Intro to Java and Python

Students learn programming basics via the Java/Python programming language. The topics of this course include data types, conditionals, and loops.

Intro to Web Development

This course is an introduction to the concepts and practices of developing static websites. Students will learn basic HTML and CSS.

Math Counts Training Camp

This course prepares the student to enter math competitions held at their school and to join the math team at their school or participate in the MathCounts team at their school. This course teaches advanced methods of how to solve math competition problems in probability, combinatorics, permutations, the Pythagorean theorem, computing areas, and prime numbers.

Geometry

This course covers selected topics in advanced Geometry helping to prepare the student for further study of geometry at the high school level and introduces the student to some types of geometry problems found on the SAT exam. Topics covered are perimeter and area, parallel lines and perpendicular lines, GeoGebra geometry software, triangles, quadrilaterals, and transformations.

Applied Math/ Deriving Math Equations

This course will be based on conducting experiments every time we meet and explore, derive and understand the origin of any formula that is related to the situation. They are all going to be formulas that are or will be encountered in Mathematics or physics. In the right hands a spreadsheet can be an extremely powerful tool. We will used spreadsheets both on computer and from Ti 84 and TI NSpire calculators. Studying science and mathematical models on computers will dramatically benefit students giving them an advantage in college and in their future careers. If students encounter enough experiences modeling on spreadsheets they will be able to solve an immense range of design type problems. They will be better able to analyze and understand data. Gaining experience now will lessen any future learning hurdles that spreadsheets will produce for them in college when they will need to use spreadsheets to study more difficult content. We will explore the following topics and others that are not listed as some of the activities are easier to perform outdoor, we will adjust our plan based on the weather or the condition outside the building.

Non-Rountine Problem Solving

In this course students will work together in small, collaborative teams on solving problems in a variety of mathematical topics, including number theory, algebra and geometry. Students will learn how techniques such as drawing pictures/diagrams, looking for patterns, solving similar problems or working backwards can be helpful as they solve problems. Each class will cover a topic in mathematics approached from different non-routine problem solving techniques. Students' work will primarily be done collaboratively in breakout rooms, which allows the teacher to easily monitor students' work and progress. Approximately once every two weeks, students will put their skills to the test through a collaborative mathematics competition. This course aims to improve students' problem-solving abilities by tackling challenges that involve creative thinking.

Introduction to the Culinary Arts

Students will be introduced to the full range of culinary arts, including preparation, planning, cooking, and presenation. They will learn proper knife skills and explore a variety of cooking techniques. All culinary arts classes are led by talented culinary experts and cover safety and food sanitation. Sample: homemade ice cream, guacamole, mac and cheese, spaghetti and meatball dinner.

Spanish: A summer in Spain

This language course is designed to introduce, reinforce and develop Spanish skills for students who are curious about the language and/ or want to expand their knowledge in the language. A variety of hands-on fun and engaging projects will allow students to learn and practice with peers and class instructor.

Formal Essay Writing MLA/Research

This course is designed to prepare middle school students for high-school level formal essay writing, using proper MLA formatting and good research practices. Students will be exposed to different types of formal essays such as persuasive, informative, compare/contrast essays, and research papers. They will learn MLA formatting and templates, as well as creating a proper Works Cited. Finally, students will improve their research skills and learn tips to prevent falling victim to media bias and misinformation.

The Incredible Story!

Students will work together to write a story that can go in any direction from the everyday to the absurd. The first student will start out writing one sentence. The next student will take that sentence, decide where to go with it and write five sentences. The next student will take that last sentence, try to figure where to go with that, write five more sentences, and so on until they have written one incredible story. The students will illustrate their five sentences using either traditional or digital methods and then assemble the story into a book that will be printed for them to take home.

3D Printing

Come explore the world of 3D Printing and learn how to create something truly original. This class will introduce students to the technology of 3D Printing, as well as 3D computer aided drafting (CAD) skills through Tinkercad. Students will learn how to design and print their own designs, how to access open source models online, and how to utilize this technology for competitions and science fairs. No experience necessary.

Intro to Fusion 360 (CAD)

This course will introduce students to the essential features of Autodesk Fusion 360, a computer-aided drafting (CAD) environment frequently used in high schools and industry. Students will learn how to draw, sculpt, render, assemble and animate their own 3D designs, as well as modify already existing 3D models. Applications to 3D Printing and other areas of student interest will be discussed. No prior experience necessary.

Fashion Design and Sewing

In this super fun, Project Runway Style class, students will be working in a fully equipped fashion and sewing studio! They will learn basic sewing techniques, basic draping and a bit of fashion history. Best of all, working in teams, they will be given "challenges". In a non-competitive, nurturing environment, young designers will upcycle all sorts of wacky materials into wearable, fabulous fashion!

Theatre Improv, Stage Make-Up and Stage Combat

In this exciting summer course, students will explore three super fun skills: improvisation, stage-make up and stage combat in a safe, collaborative space culminating in an original short film made with their classmates!

July-1st Week: 10th,11th,12th,13th,14th,

July-2nd Week: 17th,18th,19th,20th,21st

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