



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

# Summer 2024

## **FULL DAY IN-PERSON**

### Academic Camp

Grades 6-8

**July 8-19, 2024**

**8:30 am - 3:30 pm**

Select three classes for a total of six instructional hours per day. Full Day required.

@ Bergen County Academies  
200 Hackensack Ave, Hackensack NJ

[www.bergen.org/aah](http://www.bergen.org/aah)

**REGISTER NOW @**  
**[www.bergen.org/aah](http://www.bergen.org/aah)**

**Enrollment Fee**  
**\$1350**

### 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](http://www.bergen.org/aah)**



**[aah@bergen.org](mailto:aah@bergen.org)**



**@aahours**



**@academyafterhours**



## 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 trial.

## 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 use 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-Routine 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 presentation. 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.

## 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.

# Make a Comic

Join the dynamic two-week course, 'Make a Comic,' where participants immerse themselves in a hands-on, creative journey. Guided by enthusiastic instructors, you'll explore the art of storytelling through captivating prompts and a supportive environment. Unleash your imagination as you craft your unique comic narrative, culminating in a fun and engaging product that reflects your creative vision. Get ready to bring your characters to life and embark on an unforgettable artistic adventure!

# Watercolor

Dive into the vibrant world of watercolors with our exhilarating AAH summer course designed specifically for middle school students! Embark on an exciting journey of exploration as you uncover the secrets of this versatile medium. With engaging and fun prompts, you'll unleash your creativity while mastering various technical aspects. Join us for a memorable experience where you'll discover the magic of watercolors and unveil your artistic talents!

# Sketching

Designed to spark creativity and exploration, you'll dive into exciting new methods and mediums, including speed drawing with markers, gel pens, and/or digitally an iPad. Unleash your imagination as you tackle fun and engaging prompts, discovering your unique artistic style along the way. Join us for a journey filled with discoveries and experimentation, and boundless creativity!

# BizKids Bootcamp: From Concept to Pitch

In this course, middle school students will embark on an immersive journey into the world of entrepreneurship. Throughout this course, students will embark on a hands-on journey to develop their entrepreneurial skills and turn their business ideas into reality. The course covers essential topics such as idea generation, market research, financial planning, and pitch preparation. Through a series of interactive sessions, group activities, and real-world projects, students will learn how to identify opportunities, validate business ideas, and create business models. One of the highlights of the bootcamp is the culminating pitch competition, where students will have the opportunity to present their business idea to a panel of judges or their peers. This competition not only provides students with a platform to showcase their entrepreneurial ventures but also allows them to receive valuable feedback and celebrate their accomplishments. By the end of the course, students will have gained valuable skills in creativity, critical thinking, problem-solving, and communication, empowering them to become confident and innovative entrepreneurs. Whether they aspire to start their own businesses or pursue entrepreneurial opportunities in the future, the course provides them with the knowledge, tools, and inspiration to succeed in the ever-evolving world of entrepreneurship.

# Marketing Explorers: Navigating the World of Brands

This is an engaging and interactive introductory course to introduce middle school students to the fascinating world of marketing and branding. Over the span of two weeks, students will embark on a journey to discover the fundamental concepts of marketing, explore significance of branding in today’s market, and learn how to navigate through various marketing strategies and techniques. Throughout the course, students will delve into topics such as understanding target audiences, the power of advertising, product development, pricing strategies, distribution channels, and the role of social media in modern marketing. Hands-on activities, group discussions, and projects will provide students with opportunities to apply their knowledge and creativity to real-world marketing scenarios. By the end of the course, students will have gained a solid foundation into introductory marketing principles, developed critical thinking skills, and honed their creativity as they navigate through the dynamic landscape of brands and marketing strategies. Whether they aspire to be future entrepreneurs, advertisers, or simply informed consumers, this course will equip students with the essential tools and insights to navigate the exciting world of brands with confidence and curiosity.

**July-1st Week: 8th,9th,10th,11th,12th,**

**July-2nd Week: 15th,16th,17th,18th,19th**

# Academy After Hours

## Full Day Camp

**Please select one course from each session. No repeat courses.**

### **Session One 8:30-10:30**

#### **Select One Course**

Non-Routine Problem Solving  
Watercolor  
Applied Math/ Deriving Math Equations  
Formal Essay Writing MLA/Research  
Geometry  
Intro to Web Development  
Introduction to the Culinary Arts  
3D printing  
BizKids Bootcamp: From Concept to Pitch

### **Session Two-10:40-12:40**

#### **Select One Course**

Non-Routine Problem Solving  
Sketching  
Applied Math/ Deriving Math Equations  
Mock Trial  
MathCounts Training Camp  
Intro to Java and Python  
Introduction to the Culinary Arts  
3D Printing  
Marketing Explorers: Navigating the World of Brands

### **Session Three- 1:30-3:30**

#### **Select One Course**

Non-Routine Problem Solving  
Make a Comic  
Applied Math/ Deriving Math Equations  
Formal Essay Writing MLA/Research  
Geometry  
Intro to Web Development  
Introduction to the Culinary Arts  
The Incredible Story!  
BizKids Bootcamp: From Concept to Pitch



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## **Bergen County Academies**

**Administration**

**Russell Davis - Principal**

**Dr. Raymond Bath - Vice Principal**

**Giulia Zanoni-Mendelsohn - Supervisor/AAH Coordinator**

**Michelle Pinke - Supervisor**