STEM COURSES & CAMPS

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SPRING Introduction to AI & Machine Learning Course

7th Graders & UP **Course Total Hours: 14 Hours**

This Course is run by an organization created by high school students for younger students!
This course provides a tailored introduction to artificial intelligence and machine learning, two of the fastest growing and cutting-edge areas of research in the world today. Students will learn the fundamentals of programming for data science and AI development. They will apply their skills in developing a specialized AI project that they can include in their résumés. Finally, they will dive into machine learning concepts and develop an outline for a research project; top projects will be invited to a research symposium to present their idea to an audience for prizes!

CLICK HERE FOR THE COURSE CURRICULUM

$195

ONLINE

Sundays from 3:30 pm – 5:00 pm

Dates: April 12th – June 21st

CLICK HERE FOR THE Introduction to AI & Machine Learning Course ENROLLMENT FORM

SPRING ROBOTICS COURSE

Rising 6th – Rising 9th Grade Students

FIRST Tech Challenge Robotics Team & Metal Magic Inc.

This IN-PERSON **9 week**-course is run by a FIRST Tech Challenge Robotics Team, Metal Magic. This course introduces students to robotics and automation through hands-on Arduino lessons and build-focused projects and a final capstone project. Students will learn core electronics and programming fundamentals, including digital/analog I/O, PWM servo motor control, and sensors such as color and limit switches! Each week combines a short concept lesson with guided lab time to prototype, test, and iterate on real systems. Projects in the initial weeks are focused on building a foundation in electronics, wiring, and programming. The second half of the course focuses on students developing their capstone project, a maze solving robot, using the skills they learned from the first half of their course. By the end of the course, students will be able to design, write, and code complete Arduino-based automation systems and troubleshoot hardware and software issues. No prior robotics, programming, or other technical experience is required!

CLICK HERE FOR THE CAMP ITINERARY!

$295

IN-PERSON at South Riding center

$150/month
Total Classroom Teaching:
22.5 HOURS

Saturdays *from 1pm – 3:30pm*

Dates: April 11th – June 13th

CLICK HERE FOR THE SPRING ROBOTICS BOOT CAMP ENROLLMENT FORM

Creative Writing Boot Camp

Rising 6th to 10th Graders

Ms. Kylie Smith & Ms. Amber Beach

The Creative Writing Boot Camp is an in-person, **one-week camp** course designed for students in rising grades 6-10. Students will explore the basics of creative writing and will write personal narratives, short stories, poetry, and even the outline and first chapter of a novel. Students will experience lessons, writing activities, and writing projects with one-on-one feedback from a teacher. Along with being an enjoyable form of communication and expression, creative writing is extremely valuable for academics and career, whether that's for writing college application and scholarship essays, creating marketing materials, or a variety of other applications. This camp is developed and taught by Mrs. Kylie Smith, the English Program Director, assisted by Ms. Amber Beach, the English Program Director's Assistant.

IMPORTANT: While lessons will be incorporated, a significant portion of the camp will be dedicated to peer editing. Students must be comfortable sharing their writing with the teachers and their peers and receiving feedback. Students must come prepared each day with their assigned writing projects.

Materials: Please bring a laptop, a notebook, a folder, and at least 5 pencils to class each day.

$425

IN-PERSON at South Riding center

Monday – Friday from 9am – 12pm

Dates: July 20th – July 24th

CLICK HERE FOR THE CREATIVE WRITING BOOT CAMP ENROLLMENT FORM

Intro to JAVA Course

Rising 7th Grade and Up

Ronit Manchanda

Introduction to Java is an **IN-PERSON/Online, three-week-long** course designed to provide rising 7th–9th graders with a structured introduction to computer science and programming using Java. The course is project-based and focuses on real-world applications, allowing students to practice coding through interactive assignments and guided projects. By the end of the course, students will have developed a solid understanding of Java fundamentals and completed multiple coding projects.

CLICK HERE FOR THE COURSE CURRICULUM

$325

ONLINE (HYBRID) / IN-PERSON

IN-PERSON at South Riding center

Tuesdays from 6:30 pm – 8:30 pm and Sundays from 3 pm – 5 pm

This class will meet twice per week for 2 hour sessions.

Dates: COMING SOON!

CLICK HERE FOR THE INTRO TO JAVA ENROLLMENT FORM

Intro to Cyber Security Camp

Rising 7th to 10th Graders

Introduction to Cybersecurity is an **online and in-person**, **week-long camp** designed to introduce rising 7th–9th graders to the world of cybersecurity and digital safety. This camp covers fundamental cybersecurity concepts, including password security, online safety, cyber threats, encryption, and ethical hacking. The course is project-based, with a strong emphasis on real-world applications, allowing students to engage in hands-on activities, simulations, and interactive challenges. By the end of the week, students will have gained a deeper understanding of cybersecurity principles and learned practical skills to protect themselves and others online.

CLICK HERE FOR THE CAMP CURRICULUM

$325

Limited SEATS

ONLINE (HYBRID) / IN-PERSON

IN-PERSON at South Riding center

*Monday – Friday from 9am – 12pm**

COMING SOON!

CLICK HERE FOR THE INTRO TO CYBER SECURITY CAMP ENROLLMENT FORM

Introduction to Python Programming Camp

5-Day Camp for Rising 7th – Rising 10th Grade Students

Ronit Manchanda

Introduction to Python Programming is an **online and in-person, week-long camp** that introduces rising 7th–10th graders to the fundamentals of computer science and programming using Python. This hands-on, **project-based** camp covers essential programming concepts, including variables, loops, functions, conditionals, and user input, while emphasizing real-world applications. By the end of the camp, students will have built multiple interactive projects and gained a strong foundation in Python programming.

CLICK HERE FOR THE CAMP ITINERARY!

$325

ONLINE (HYBRID) / IN-PERSON

IN-PERSON at South Riding center

*Monday – Friday from 9am – 12pm**

Dates: COMING SOON!

CLICK HERE FOR THE INTRO TO PYTHON CAMP ENROLLMENT FORM

Introduction to Python Programming Course

Rising 7th – Rising 10th Grade Students

Ronit Manchanda

Introduction to Python is an online and in-person, **six-week-long** course designed to provide rising 7th–10th graders with a structured introduction to computer science and programming using Python. The course is project-based and focuses on real-world applications, allowing students to practice coding through interactive assignments and guided projects. By the end of the course, students will have developed a solid understanding of Python fundamentals and completed multiple coding projects.

CLICK HERE FOR THE CAMP ITINERARY!

$325

ONLINE (HYBRID) / IN-PERSON

IN-PERSON at South Riding center

Sundays from 3 pm – 5 pm

$215/month
Total Classroom Teaching:
12 HOURS

This class will meet once per week for 2 hour sessions.

Dates: COMING SOON!

Classes will not be in session through the Fourth of July weekend (7/4-7/7)

CLICK HERE FOR THE INTRO TO PYTHON COURSE ENROLLMENT FORM

CURIE LEARNING
learning with the leader ...

Robotics & Arduinos Camp

Rising 2nd to 9th Graders

First for Youth Team

(An organization created to give students STEM opportunities while starting, mentoring and funding Robotics teams in Northern Virginia)

Rising 2nd to Rising 5th Graders

During this in-person, **one-week camp**, students will acquire teamwork and problem-solving skills to construct Lego energy models under the guidance of our trained robotics instructors. Our instructors will provide a comprehensive overview of assembling energy models to show the different energy components such as source, storage, distribution. and consumption. Students will then learn to program the models to operate at the same time, demonstrating the flow of energy from the source to their communities. In addition, the students will participate in numerous projects, enabling them to learn about energy transfer and develop their skills of teamwork, problem solving, and block programming.

CLICK HERE FOR THE CAMP ITINERARY

$350

IN-PERSON at South Riding center

*Monday – Friday from 9am – 2pm**

June 29th – July 3rd

CLICK HERE FOR THE ROBOTICS CAMP ENROLLMENT FORM

Rising 6th to Rising 9th Graders

During this in-person, **one-week camp**, students will use hands-on robotics kits along with our experienced robotics instructors to learn the intricacies of Arduinos and robotics. Our team of instructors will be walking students through the basics of assembling the robotics kit to programming it to follow a line, detect walls, and many other projects throughout the week. Students will learn the basics of C++ and Arduino programming, and will gain experience with assembling and testing a robot kit.

***Robotics kit is included value of $80.00.**

CLICK HERE FOR THE CAMP ITINERARY

$495

IN-PERSON at South Riding center

*Monday – Friday from 9am – 2pm**

Three Choices:

1. **July 13th – July 17th**
2. **July 27th – July 31st**
3. **August 3rd – August 7th**

CLICK HERE FOR THE ROBOTICS CAMP ENROLLMENT FORM

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ROBOTICS BOOT CAMP

Rising 6th – Rising 9th Grade Students

FIRST Tech Challenge Robotics Team & Metal Magic Inc.

This **one-week camp**, hosted by the FIRST Tech Challenge (FTC) team Metal Magic, immerses rising 6th–9th graders in the real-world process of building an FTC-scale robot while working as part of one of two mini competitive teams. Guided step-by-step by experienced competitive robotics mentors, students get direct experience with electronics, Java programming, robot design, and hands-on troubleshooting as they prepare to take on the official 2026 FIRST Tech Challenge (FTC) DECODE Challenge—a global robotics game where teams design and program robots to solve engineering problems. With minimal focus on background, FTC gives students the chance to apply STEM skills in a highly collaborative, competitive format. Over the course of the week, teams will design, build, and market their own robots, learn how to brand and promote a team, and solve real problems faced by actual FTC teams. The camp concludes with a game-day test and a showcase for parents. No previous coding or building experience is needed, everyone receives detailed mentorship and the chance to develop technical and teamwork skills in an engaging setting.

CLICK HERE FOR THE CAMP ITINERARY!

$345

IN-PERSON at South Riding center

Monday to Friday from 9am – 12:30pm

Dates: August 10th – August 14th

CLICK HERE FOR THE SUMMER ROBOTICS BOOT CAMP ENROLLMENT FORM

AUTONOMOUS ROBOTICS COURSE

Rising 7th – Rising 10th Grade Students

FIRST Tech Challenge Robotics Team & Metal Magic Inc.

This **four-week course**, hosted by the FIRST Tech Challenge (FTC) team Metal Magic, introduces students to autonomous robotics through Arduino development. Students will learn about core electronics including servo control and motor based robot movement, as well as using sensors such as laser distance tracking and color sensing. Each week introduces concepts with lessons, and guided lab time to work on their **final project: an autonomous robot capable of organizing objects.** By the end of the course, students will design and code an Arduino based autonomous robot and learn how to troubleshoot hardware and software issues along the way. No prior robotics, programming or technical experience is required!

**The program fee includes Arduino UNO and other electronics which the student will be able to take home at the end as part of their working robot project. The Arduino kits are great for other projects the student may want to do at home!

CLICK HERE FOR THE CAMP ITINERARY!

$375

IN-PERSON at South Riding center

Tuesday 6:30pm – 8:30pm & Saturday from 10am – 12:30pm

Dates: Saturday, June 20th – Tuesday, July 21st

Classes will not be in session on 7/4 in celebration of Independence Day

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CLICK HERE FOR THE AUTONOMOUS ROBOTICS ENROLLMENT FORM

Introduction to STEM Research Camp

Rising 7th – Rising 10th Grade Students

Rutvi Devani

During this **ONLINE**, **one-week course**, students will learn the foundations of how to conduct STEM based research writing to help them in their future endeavors in both high school and in college. Research skills developed early on would put your child at an advantage since research skills are not taught at all schools (yet it is expected at higher levels of education) giving a competitive edge to students who start learning early on. Whether for school projects, science fairs, or other competitions, this course will teach students step-by-step through the full research process on how to form strong questions, build hypotheses, and write each component of a research paper from introduction to conclusion. The course will also explore how research is conducted in a laboratory and outside of a laboratory, making this course practical for any student regardless of setting. By the end of the week, students will be able to write the full research paper, the abstract, and give "lightning talks" to present research. The skills learned in this week-long course would help the student learn to use the internet for research purposes, give a head start for STEM research internships and mentorships, build public speaking skills, and more.

CLICK HERE FOR THE CAMP ITINERARY!

$325

ONLINE

*Monday – Friday from 9am – 12pm**

Dates: COMING SOON!

CLICK HERE FOR THE INTRO TO STEM RESEARCH CAMP ENROLLMENT FORM

Introduction to AI & Machine Learning Course

7th Graders & UP

Course Total Hours: 14 Hours

This Course is run by an organization created by high school students for younger students!
This course provides a tailored introduction to artificial intelligence and machine learning, two of the fastest growing and cutting-edge areas of research in the world today. Students will learn the fundamentals of programming for data science and AI development. They will apply their skills in developing a specialized AI project that they can include in their résumés. Finally, they will dive into machine learning concepts and develop an outline for a research project; top projects will be invited to a research symposium to present their idea to an audience for prizes!

CLICK HERE FOR THE COURSE CURRICULUM

$295

ONLINE

Sundays from 3:30 pm – 5:00 pm

Limited SEATS

July 12th, 2026 – August 30th, 2026

CLICK HERE FOR THE Introduction to AI & Machine Learning Course ENROLLMENT FORM

Quantum Computing Course (qMe)

7th Grade & UP

Course Total Hours: 7 Hours

This ONLINE course is run by qMe, an organization created by high school students for younger students!
Welcome to qMe! We are two college students with Aditya at University of Maryland CS and Akshita attending University of Virginia CS. Both of us have been exposed to quantum computing through our research and various endeavors at both schools. Both have attended MIT conferences to present their quantum computing research and continue to expand their knowledge in college. One regret we often discuss is how we were initially scared to get into quantum computing and wasted many years we could have spent learning, as there is a stigma that there needs to be a high level of background knowledge to succeed in such an advanced field as a high schooler. Therefore, we decided to create our own organization to educate those who have an interest. We also want to give students a chance to speak on a platform about quantum, which is why this course goes hand-in-hand with our blog in which students will be able to showcase what they learn in quantum through articles, something we believe is important for sourcing.

qMe is a one-of-a-kind organization aimed to teach younger students about the rapidly growing field of quantum computing and its subsets with the aim of making quantum computing accessible to students of all backgrounds. This course tends to conventionally start at the university level, but by igniting interests of the young demographic towards the field early, we can shape the role our future workforce will play in this important field, which is estimated to rapidly grow in the next decade. Students will learn higher level math concepts, programming concepts, physics concepts, etc. Not only will students learn but they will perform hands-on tasks such as running simulations and writing algorithms on IBM Quantum Composer. This fully online course will not only introduce students to the quantum computing world, but teach them concepts that are critical, with no prerequisite.

We have taught over **200** students in just two years, have been featured on **NBC4 PrimeTime**, and have made over $30,000, with over half being donated to Ugandan healthcare initiatives as well as a women's orphanage in Hyderabad. Above all, we have expanded to teaching college students in India, with our newest pilot program **teaching 4th year engineering students at JNTU-K**. Many of our students go on to TJ, AOS, and AET as well as continue their quantum research even with college collaborations. **If you want your child to stand out, quantum computing is the place to be. NO prior experience needed!**

https://www.nbcwashington.com/news/local/northern-virginia/northern-va-high-schoolers-teach-quantum-computing/3458239/

CLICK HERE FOR THE COURSE CURRICULUM

$195

ONLINE

Saturdays from 9:30 am – 10:30 am

June 27th, 2026 – August 15th, 2026

CLICK HERE FOR THE QUANTUM COMPUTING COURSE ENROLLMENT FORM

2026 SUMMER PROGRAMS

TENTATIVE ONLINE & IN-PERSON CLASS SCHEDULE

FOR HIGH SCHOOL, MIDDLE SCHOOL & ELEMENTARY SCHOOL STUDENTS

Office Hours until June 14th

South Riding Center:
Monday through Friday from 6:30 pm to 8:30 pm,
Saturday from 1 pm – 3 pm
Sunday from 10 am – 1 pm
Eastern Standard Time

Herndon Center:
Monday & Wednesday from 6:30 – 8:30pm,
Saturday 10:30 am to 12:00 pm
Eastern Standard Time

Ashburn Center:
Monday through Thursday from 6:30 pm to 8:30 pm
Eastern Standard Time

Office Hours from June 15th until August 20th

South Riding Center:
Monday through Friday from 6:30 pm to 8:30 pm,
Saturday from 1 pm – 3 pm
Sunday from 10 am – 1 pm
Eastern Standard Time

Herndon Center:
Monday from 6:30 – 8:30pm,
Saturday 10:30 am to 12:00 pm
Eastern Standard Time

Ashburn Center:
Tuesday from 6:30 pm to 8:30 pm
Eastern Standard Time

CONTACT US:

Office phone number: (703) 798-6808
Dr. Rao: (703) 582-0436
Website: www.curielearning.com
Email: curielearning@gmail.com

Main Office: 43250 Stonewall Pond St., South Riding, VA 20152

Herndon Center	South Riding/Chantilly Center	Ashburn Center
13505 Dulles Technology Dr., Suite 1, Herndon, VA 20171	43250 Stonewall Pond St., South Riding, VA 20152	20604 Gordon Park Square #150 Ashburn, VA 20147

PAYMENT OPTIONS:

All registration forms must be completed online before a payment is made.

Online Payment Option: For all short-term summer courses, all enrollees will receive an email invoice to make a payment online through PayPal with a 4% online processing fee or through Zelle to avoid any online payment service fee.

Drop Box (South Riding Center): There is a drop box on the porch of the South Riding Center.
You may drop off your check into a box any time. Please place your check in an envelope. On the MEMO line on the check, please include your child's first and last name and the class for which your child is registered.

Mailing Option: You may also mail your check to the South Riding Center via USPS (43250 Stonewall Pond St., South Riding, VA 20152).

REGISTRATIONS ARE NOT COMPLETED UNTIL THE FULL PAYMENT HAS BEEN RECEIVED AND PROCESSED.