



## **STEAM, Engineering and Artificial Intelligence, Leave replacement September 2021 through November 2021**

Miss Hall's School inspires and encourages each girl to pursue the highest standards of learning and character; to contribute boldly and creatively to the common good; and to seek a purposeful life based on honor, respect, growth, and personal authenticity.

At Miss Hall's School, we champion social justice; insist that all community members demonstrate respect for each other through words and actions; and affirm that diversity, equity, and inclusion are essential to learning and problem solving, discovery and personal growth, and cultivating empathy and cultural competency. Guided by these beliefs, and with the understanding that being an inclusive community requires ongoing work and commitment, we foster cross-cultural dialogue and allyship to honor and celebrate our diverse community.

Miss Hall's is seeking a talented educator for a short term leave replacement ( September through December) for four classes in STEAM, Engineering and Artificial Intelligence. Curriculum outlines and materials will be provided. Programming experience required, familiarity with Python language and Arduino systems preferred. Previous high school teaching experience is preferred.

### **Courses:**

- **STEAM:** In this semester-long course, we will extend our knowledge on core concepts by exploring the intersection of these five disciplines; Science, Technology, Engineering, Art, and Math. Drawing from the scientific practices, the engineering design process, mathematical problem solving, and the creative process, students will develop skills to apply their knowledge while creating, exploring, and developing technologies that enhance their understanding of the natural and human-made world.
- **Engineering and Society:** This one-semester course explores the fundamentals of the engineering design process and its application to societal issues, ethics, and social responsibilities. Over the course of the semester, students will work collaboratively to model and develop technologies that address real world, local, regional, and global issues.
- **Artificial intelligence and Machine Learning:** Hallmark Computer Science is designed for students wanting to advance their understanding of programming and its application to solving real-life problems. In this course we will learn the fundamentals of AI systems, work to create your own AI system, and apply it to a problem or question.. Finally, students will be working with the programming language Python.
- **Introduction to Computer Science:** This one-semester course is designed to introduce the fundamentals of computer science and programming. Students will explore Python programming language to develop computational thinking skills to critically approach and solve problems. Further, course content will be applied to student-led projects promoting social awareness and curiosity about global issues.