

AEROSPACE ENGINEERING SUMMER COURSES FOR GRADES 9-12

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Don't wait until college to be a rocket scientist!

Registration now open
for Summer 2023!
wayouthrocketry.org



Multiple courses available. Course sections are filling up fast, so make sure to enroll today before space runs out!

Elementary and middle school programs also available, open for registration now!

Questions?

Contact us at office@wayouthrocketry.org



Washington Youth Rocketry

a 501(c)(3) educational organization

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Redmond
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Our **High School Lecture Series** is a program designed from the ground up to bring university-level aerospace education into a high school setting. This revolutionary program provides a comprehensive overview of core aerospace concepts previously reserved for only degree-seeking students at top colleges with aerospace schools.

In our courses, we seek to maintain the spirit of actual university aerospace courses by retaining the breadth and accuracy while balancing complexity. Whether a student is the biggest aerospace enthusiast, or still looking to choose a college major, our **High School Lecture Series** have the perfect college-prep courses for a head start in any aerospace engineering degree. Students will have the opportunity to have their first experience of learning in a university-style course, lecture hall and everything. See what it's like to be an actual engineering college student, but without the stress!

Summer 2023 Available Courses

AE301 “How to Fly” - Principles of Aerodynamics

Ever wondered why planes stay in the air? In this course, students will learn about how the air all around us affects the motion of objects and give rise to spectacular phenomena. We'll start with an introduction of fluid mechanics, considered the foundation of aerodynamics. Using what we learned, we'll investigate the behavior of airfoils and wings, and how they can affect the performance of aircraft. We'll also see how the effect of air changes across flow regimes, from subsonic to hypersonic, incompressible to compressible. By the end of this course, students will be able to appreciate the presence of aerodynamics in our everyday lives.

AE401 “Literally Rocket Science” - Air and Spacecraft Propulsion Fundamentals

Ever heard of the phrase "it's not rocket science"? Well, in this case, it literally IS rocket science! In this course, students will learn all about the way things go. Every vehicle that flies in the air or space needs a propulsion system, and it is the job of the aerospace engineer to build it. We'll explore the inner workings various engines that have been invented for the purpose of propulsion, both air-breathing engines (such as the ubiquitous jet engine) and all the different types of rocket engines. We'll cover the most elementary of propeller engines, to the most exotic and cutting-edge nuclear rockets. Along the way, students will discover foundational thermodynamic principles applicable to physical phenomenon beyond propulsion.

For more information, including locations, available dates and sessions, fees, and how to register, please head over to

wayouthrocketry.org/classes



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