

Pathway	Class Name	Prereqs and helpful information from the teacher
English	English 9	<p>English 9: Students read classic and contemporary literature related to the theme of "identity". The standard level devotes more time than the Intensified level on skill development in reading, writing, and speaking. Collaborative skills are developed through group projects.</p> <ul style="list-style-type: none"> <li>* Small and whole-class discussions about literature and nonfiction reading</li> <li>* Multi-paragraph writing in different genres (narrative, expository, persuasive)</li> <li>* Homework requires an average of one hour between classes of reading / writing assignments.</li> </ul>
	English 9 Intensified	<p>The intensified version of the class writes more, reads more, and goes further with our ideas than the standard class. Students read classic and contemporary literature related to the theme of "identity". The Intensified level requires extensive reading, increased writing, intensive grammar, advanced vocabulary, independent management of project- based learning steps, and high-level performance beyond that required in the Standard sections. It also moves more quickly. Students are expected to read 50-60 pages between every class. Students are expected to read FULL novels in a matter of weeks.</p> <p>Expectations:</p> <ul style="list-style-type: none"> <li>* Students are expected to independently manage their workload and submit assignments based on Canvas due dates</li> <li>* Homework requires an average of one hour between classes of reading / writing assignments.</li> <li>* Teacher recommendations are based on high performance in previous English classes.</li> </ul>
History	World History	<p>In WHII Standard the curriculum is covered in a rigorous manner with students expected to collaborate on assignments and meet daily benchmark requirements. The writing component is standard to what a typical 9th grade student should be able to cover. Students are expected to delve deep into material in order to maximize grade value.</p>
	World History Intensified	<p>In WHII Intensified the curriculum is covered in the same rigorous manner as Standard but the pace is quicker and the assignments are more detailed. The writing component is above average for what an incoming 9th grade student should be expected to write and the depth of the project is extensive. Expectations are much higher for the Intensified class.</p>
Science	Biology	<p>Do you enjoy working with others, sharing ideas, and solving problems as a team? Biology is all about collaboration and communication. In this hands-on class, you'll dive into biology by tackling real-world challenges and creating amazing projects with your classmates.</p> <p>To succeed, you'll need to be ready to work as a team, share your thoughts, listen to others, and think creatively. You'll research topics, teach yourself and your peers, and design cool projects that show what you've learned. Plus, at the end of the course, you'll take the Biology SOL, which is a graduation requirement. If you love working with others, being creative, and learning by doing, this is the class for you!</p>
	Biology Intensified	<p>This course prepares students for college-level biology, covering topics like molecular biology, genetics, and ecology. It emphasizes laboratory techniques, experimentation, and analysis. <b>Students must design and conduct an independent project</b>, write a formal science paper, and participate in the school science fair. They receive support to complete their project, but it's important to follow the timeline to avoid falling behind. All students will take a final exam and the state SOL.</p> <p>Intensified biology is <b>faster-paced and requires more independent work than standard biology</b>. In addition to science projects, students will engage in 1-2 project-based learning (PBL) projects throughout the year. <b>Students should study for tests, as many 9th graders find biology tests challenging compared to previous years</b>. While there is group work for labs, students are generally expected to complete the analysis on their own.</p>
Math	Algebra (Sem 1)/ Geometry (Sem 2)  (takes up 2 blocks/periods)	<p><b>This course takes up 2 blocks (you <u>lose</u> an elective class)</b></p> <p>This fast-paced course covers the full Algebra 1 curriculum in half the time. Ideal for motivated students, it features:</p> <ul style="list-style-type: none"> <li>* <b>Flipped Classroom:</b> Learn at home, practice in class.</li> <li>* Self-Paced Learning: Progress at your own speed.</li> <li>* Assessment-Based Grading: Grades based on quizzes and tests, not homework.</li> <li>* Practice for Mastery: Complete exercises to ensure understanding.</li> <li>* Regular Attendance: Vital for success.</li> <li>* Good Number Sense: Strong skills in integer operations without a calculator.</li> <li>* By the end, students will be well-prepared for higher-level math courses and standardized tests.</li> </ul> <p>Semester 2: You will learn Geometry with a focus on project based learning.</p>
	Geometry	<p><b>Prereq:</b> Algebra 1</p> <p>In Geometry, be ready to use algebraic rules and apply it to geometric concepts.</p>
	Geometry Intensified	<p><b>Prereq:</b> B in Algebra1</p> <p>In Intensified we have an increase rigor, pacing and we prioritize proofs with no support.</p>
	Algebra II	<p><b>Prereq:</b> Geometry</p> <p>Best for students who have a strong foundation of Algebra 1 and Geometry. Students should prepare to have a Whole class lesson, followed by an activity for practice, finishing with Homework each night.</p>
	Algebra II/Trig Intensified	<p><b>Prereq:</b> B in Geometry Intensified or Prerequisite: Grade "B" or better in Geometry, Intensified or "B" in both Algebra I and Geometry</p> <p>This is taught as a "flipped classroom" where students are expected to watch videos of the lesson at home, and then come to class the following day prepared to practice what they learned the night before.</p>

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Engineering	<b>Technology &amp; Engineering Foundation (TEF)</b>  <u>(required</u> for all AT 9th graders)	Technology and Engineering Foundations is the universal “starter kit” for every Arlington Tech student, building core skills for an era shaped by intelligent machines. In this course, you will move from passively watching technology to creating it, using professional software and digital tools to design practical, real-world solutions. Through team-based projects—like launching rockets, engineering catapults, and racing Bluetooth-controlled vehicles—you will learn to tackle complex technical problems while collaborating, managing conflict, and sharing responsibility. The course ultimately focuses on growth: developing self-direction, confidence among teams, and the perseverance to push through difficult challenges.
<b><i>Elective Options for Rising 9th Grade Students</i></b>		
Animal Systems	<b>Small Animal Care I &amp; II</b>  (takes up 2 blocks/periods)	<p>Are you interested in working with animals someday? How about right now?!</p> <p>In Small Animal Care I and II, students spend half of the time in the classroom learning about animals and how to care for them. The other half of the time, students are assigned a real animal to take care of during class! We have over 200 animals spanning over 60 different species in our program. Students are responsible for preparing the animals' diets, grooming and training them, providing physical and mental exercise, and cleaning up after them! Take a rabbit for a walk! Teach a cockatiel how to sing! Use chemistry to create a frog-safe pond! Help a snake to shed their skin! Train a rat to move through an obstacle course!</p> <p>We cover topics like the history of animal domestication, breeds and characteristics, reproduction, health and disease, and more! We even bring in industry professionals and take field trips to teach students about many of the different animal-related careers that exist. This is the perfect class for someone who is interested in pursuing a career with animals and would like to learn more, gain experience, and build industry connections. We also have a partnership with the NOVA Vet Tech program for students who are interested in taking their passion for animals to the next level.</p>
	<b>Veterinary Science I &amp; II</b>  (takes up 2 blocks/periods)	<p>These courses prepare students for careers in veterinary medicine and related fields. Key topics include: Animal care and safety practices, anatomy and nutrition, medical terminology and sanitation, clinical exams. Students also learn important skills such as communication, facility operations, and professional etiquette. Practical skills include first aid, surgery preparation, aseptic techniques, and medication administration, with hands-on experience working with live animals.</p> <p><b>Who Should Take This Class:</b> Students should be comfortable caring for animals and understand the risks of getting bitten or scratched. It's important not to have severe allergies to pet dander. <b>This class is NOT just a “play” with animals class</b>—there is real content involved that can be quite challenging. That being said, if students keep up with the classwork, attend regularly, and use the study guide to help them prepare for tests, most students will find that they can be successful in this class.</p>
General Mgmt-Entrepreneurship	<b>Entrepreneurship</b>	This entrepreneurship class is designed for students who want to make a positive impact on their community by starting their own worker cooperatives to provide goods and services needed by our community while also providing a decent and honest living for the co-op members. Students will explore how to determine community needs, devise a business plan around meeting an identified need, and then learn the skills required to start and run a democratically owned and operated business
Energy Sustainability & Efficiency	<b>Sustainability &amp; Renewable Technology</b>	This class explores issues that affect global citizens in the areas of economics, culture, and the environment. The course introduces students to the historic, economic, political, environmental, and cultural issues that impact the global community and its future. Students will address issues affecting the health of our environment and explore solutions offered by sustainable agriculture, energy efficient building design, and renewable energy sources.
Planning	<b>Space Force JROTC I, II, III, IV</b>	<p>In Space Force JROTC, the class lessons focus on Aerospace (Col Dierlam) and Leadership (MSgt Victor) lessons.</p> <p>Cadets are required to wear the Space Force JROTC all day once a week and to meet the Space Force grooming standards to include a professional military hair style.</p> <p>Cadets are expected to attend 4 outside of class activities during the school year. To become a cadet leader cadets must attend some of our afterschool activities after school on Tuesday, Wednesday, and Thursday. However, a student can earn an A grade in the class by accomplishing the class lessons and wearing the uniform properly each week. To become the cadet squadron commander, the cadet must be able to attend our afterschool activities on a regular basis.</p>
Diagnostic Services	<b>Introduction to Health &amp; Medical Sciences</b>	Curious about a career in healthcare? This class is your starting point! Explore exciting careers like EMT, pharmacy tech, or physical therapy aide while learning the basics of medical terminology, anatomy, and emergency care. You'll also pick up real-world skills like safety, professionalism, and job-seeking tips to help launch your future in healthcare. Ready to take the first step? This is the class for you!
Restaurants & Food/Bev Services	<b>Introduction to Culinary Arts</b>	The Arlington Career Center Culinary Arts program is an American Culinary Federation accredited Culinary Arts program that gives high school students a true head start in the foodservice industry. Students train in a professional-grade commercial kitchen, build real culinary skills, and earn nationally recognized industry certifications that employers trust. With hands-on instruction, industry-standard safety and sanitation training, and opportunities for competitions, internships, and college credit, we prepare young culinarians to step confidently into the workforce or continue on to post-secondary education. It's not just a class, it's a launchpad for future chefs, entrepreneurs, and hospitality leaders.

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<i>Early Childhood Development &amp; Services</i>	<b>Child Development &amp; Parenting</b>	Child Development prepares students for future family life and careers related to early childhood. Students will study first aid and safety, child development theory, and developmental milestones for all childhood ages and stages, as well explore parenting styles and practices. The study of careers related to early childhood will continue throughout the year, and several guest speakers have been invited to the class to discuss their careers and expand on relevant topics.
<i>Information Support &amp; Services - Network Systems</i>	<b>Cybersecurity Fundamentals</b>	In this class, students learn how to stay safe online and protect computers, accounts, and data from hackers and cyber threats. Students use virtual computer labs and take part in Capture-the-Flag (CTF) challenges all year to practice real-world cybersecurity skills in a fun, hands-on way.
<i>Journalism</i>	<b>Literary Magazine</b>	Students work to strengthen their creative writing skills through collaborative workshops in order to publish a magazine of student literary writings. Students will learn how to write original fiction, nonfiction, poetry, and drama throughout the publication cycle. Students in the class will become stronger writers, stronger editors, and better critics by practicing the collaborative writing/critiquing cycle. The class will work with the Chronicle to publish an online literary magazine for an authentic audience. All Grace Hopper students will be able to submit to the literary magazine but the class will serve as the editorial board for the final product.
	<b>Newspaper</b>	This course is an English elective that develops skills in publishing print and digital media. Students practice journalistic writing and interviewing, learn about ethics and laws in media, and plan collaborative projects. Students are responsible for the production of the ACC Chronicle website, on which we publish content each week, and four print editions, published each quarter. Expectations: Students should be ready to pitch article ideas, give and receive feedback, and publish articles online every one to two weeks Leadership opportunities include editor-in-chief, creative manager, lead editor, lead publisher Grades are based use of class time, collaboration, and number of publications per quarter
	<b>Yearbook</b>	Students produce the yearbook. Over the course of the year, students work to fill the book and meet the publishing deadline.
<i>Marketing Mgmt</i>	<b>Marketing</b>	Students will learn how products are developed, branded, and sold. They will analyze industry trends and gain hands-on experience in the marketing of goods, services, and ideas and be prepared for success in postsecondary education and employment. Topics include: professionalism in the workplace, product planning and positioning, promotion, pricing, selling, economic issues, and changes in the marketplace.
<i>Engineering &amp; Technology</i>	<b>Materials &amp; Processing Tech</b>	The science and engineering of solid materials and how to manufacture and produce the materials. It is an extension of chemistry with a focus on how and why materials are selected for its intended purpose. This elective is great for students who love science, especially Chemistry.
	<b>Technology of Robotic Design</b>	Students engage in the study of computers and microprocessors and their applications to manufacturing, transportation, and communication systems. Topics include computer equipment and operating systems, robotics, programming, control systems, and social/cultural impact of these technologies. Problem-solving activities challenge students to design, program, and interface devices with computer systems. Learning activities include robotics, computer-aided design, computer-aided manufacturing and design, and control of electromechanical devices.
<i>Visual Arts</i>	<b>Art I</b>	Best for kids who enjoy using their hands and want to explore their own creativity. We do traditional painting and drawing projects but also do fiber arts (embroidery, felting), paper building and folding (tunnel books, origami sculptures), and create work for an end of year gallery show. Lots of flexibility and choice are given in this class but don't expect to get an A just by showing up.
	<b>Digital Photography I</b>	A rigorous course with most projects needing to be completed outside of class time. You'll learn all about how cameras work, the creative choices you can make when creating an image and why visuals are so important in our lives. Expect technical and abstract assignments with written reflections accompanying your images. Personal responsibility is a must- you'll be in charge of an \$850 camera for the entire school year (you break it/lose it, you pay for it).

