

Ocean Lakes High School

Mathematics & Science Academy

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PROFILE

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Mission Statement

The mission of the Ocean Lakes High School Mathematics & Science Academy, in partnership with our entire community, is to provide highly capable students with a rigorous, comprehensive, college-preparatory program focusing on innovative, interdisciplinary instruction in advanced science and mathematics with the integration of technology.

History of the School

Ocean Lakes High School, *Home of the Dolphins*, opened its doors on September 7, 1994. The 330,525 square foot school is the largest educational facility in Virginia Beach and one of the largest in the Commonwealth. The Mathematics & Science Academy, a school within a school, became Virginia Beach's first Academy school in September, 1996, with an enrollment of 196 students.

School and Community Information

Located in the eastern most part of the city, Ocean Lakes High School draws students from the entire city of Virginia Beach. It operates on A/B block scheduling. Local businesses and universities form a vital partnership to provide mentor sites for the senior research projects. In addition, community leaders, parents, faculty, and students meet periodically to discuss pertinent issues and make recommendations regarding program effectiveness.

Admissions Criteria

Eighth grade students who live in the city of Virginia Beach and have completed Algebra I or a higher mathematics course may apply for admission. Through testing and an application process, approximately 125 students are admitted each year. All students are capable, motivated, and display an intense interest in one or more areas of the curriculum.

Possible Career Options

<i>Engineering</i>	<i>Dentistry</i>	<i>Marine Science</i>
<i>OB GYN</i>	<i>Architecture</i>	<i>Environmental Fields</i>
<i>Dentistry</i>	<i>Physical Therapy</i>	<i>Veterinary Medicine</i>
<i>Orthopedics</i>	<i>Sports Medicine</i>	<i>Surgical Fields</i>
<i>Legal Fields</i>	<i>Communications</i>	<i>Respiratory Therapy</i>
<i>Advertising</i>	<i>Pediatrics</i>	<i>Scientific Research</i>
<i>Radiology</i>	<i>Meteorology</i>	<i>Computer Science</i>
<i>Optometry</i>	<i>Medical Research</i>	<i>Musical Fields</i>
<i>Military</i>	<i>Landscape Design</i>	<i>Aerospace Engineering</i>

Curriculum

The Academy provides a rigorous and comprehensive college preparatory curriculum. The courses within this curriculum exceed traditional standards. The program promotes academic excellence through emphasis on individual and group research, experimentation, and community interaction. The ninth- and tenth-grade curricula focus on courses necessary to meet or exceed the advanced diploma requirements, although these courses are distinguished by their advanced level and instructional methodology. The eleventh- and twelfth-grade curricula are more specialized. Students present papers and research results to a variety of audiences, including presentations at local, state, and national competitions.

Academy students are enrolled as full-time students at Ocean Lakes High School and enjoy access to all programs and activities, including those sponsored by the Virginia High School League. The curriculum provides students the opportunity to achieve in all disciplines. The focus is on science and mathematics, supported by applications in technology. The curriculum emphasizes the interrelationship among the disciplines and utilizes a myriad of problem-solving techniques. In addition to the specialized electives, students may also choose from as many as 22 Advanced Placement courses.

Graduation Requirements

Students who meet the graduation requirements for the Mathematics & Science Academy at Ocean Lakes will have exceeded the state-mandated requirements for the 24-credit Advanced Studies Diploma. Students who successfully complete the Academy program will graduate with at least 26 credits and will receive an Academy seal on their diploma. Students who earn a "B" average or better also will receive a Governor's seal. Students who choose the Advanced Studies Diploma and graduate with an average grade of 3.0 or better and do not complete an Advanced Placement (AP) course or an approved college level class for credit will receive the Seal of Excellence.

Credits for Graduation

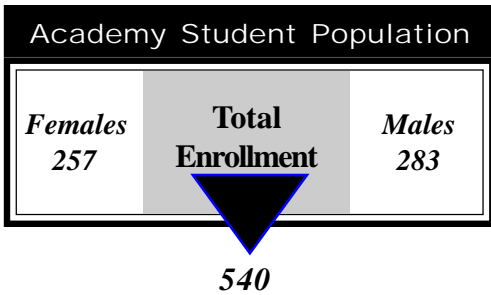
Foreign Language	3	<i>(3 years of one language or 2 years each of 2 languages)</i>
Health and Physical Education	2	
Language Arts	4	
Mathematics	5	<i>(Minimum)</i>
*Science	4	<i>(Minimum)</i>
*Social Studies	4	
Technology	1	
Senior Research/ Mentorship	1	
Electives	2	
TOTAL UNITS =	26 CREDITS	

** Students must select from a list of courses approved for graduation requirements by the State Board of Education.*



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National Merit Scholarship Semifinalists

*Zolton Bair, James Beardsley,
and
Donald Guy*

SAT I Data

	Academy Class of 2006			Academy Class of 2007		
	Critical Reading Score	Writing Score	Math Score	Critical Reading Score	Writing Score	Math Score
Academy Average	612	588	644	583	567	627
OLHS Average	507	487	520	521	509	540
VBCPS Average	497	485	505	<i>Data Not Available at This Printing</i>		
Virginia Average	512	500	513	511	498	511
National Average	503	497	518	502	494	515

Colleges and Universities Offering Admission to the OLHS Math & Science Academy Students

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|---------------------------------------|-----------------------------------|---|----------------------------------|
| Advanced Technical Institute | Florida Institute of Technology | Massachusetts Institute of Technology | Seton Hall University |
| Arizona State University | Florida State University | Mercer University | Shenandoah University |
| Art Institute of Arlington | Florida Tech | Methodist University | Smith College |
| Auburn University | University of Central Florida | Miami International University | Southampton College |
| Baltimore International College | University of Florida | University of Miami | Stanford University |
| Bauder College | University of West Florida | Michigan State University | University of Tennessee |
| Boston University | Fordham University | University of Michigan | Texas A & M |
| Bowie State | Free Will Baptist Bible College | Middlebury College | Trinity College |
| Bricknell University | Gallaudet University | Morgan State University | Trinity International University |
| Bridgewater College | George Mason University | Naval Academy Preparatory | Tufts University |
| Brown University/Brown Medical School | Georgia Tech | University of Nebraska | Tulane University |
| Bryant and Stratton | University of Georgia | New York University | Tuskegee University |
| Bryn Mawr College | Greensboro College | Norfolk State University | Universal Technical Institute |
| California Polytechnic Institute | Hampden-Sydney College | North Carolina A&T | U.S. Air Force Academy |
| University of Southern California | Hampton University | North Carolina State University | U. S. Merchant Marine Academy |
| Calvin College | Harvard University | University of North Carolina | U.S. Military Academy |
| Carnegie Mellon University | Howard University | University of North Carolina at Chapel Hill | U.S. Naval Academy |
| Case Western Reserve University | Albertson College of Idaho | Northern Illinois University | Villanova University |
| College of Charleston | University of Illinois | Northwestern University | University of Virginia |
| Christopher Newport University | Illinois Institute of Technology | Ohio State University | University of Virginia at Wise |
| Clearwater Christian College | Indiana Institute of Technology | Old Dominion University | Virginia Commonwealth University |
| Clemson University | International Masonry Institute | Olivet Nazarene University | Virginia Military Institute |
| Coastal Carolina University | University of Iowa | Pennsylvania Culinary Institute | Virginia Tech |
| University of Colorado | Jacksonville University | Pennsylvania State University | Virginia Wesleyan |
| Columbia University | James Madison University | University of Pittsburgh | Wake Forest University |
| Cornell University | Johns Hopkins University | Princeton University | University of Washington |
| Culinary Institute of America | Johnson C. Smith University | Purdue University | Washington & Lee University |
| Dartmouth College | Johnson and Wales | Radford University | Wesleyan College |
| DePaul University | Kansas State University | Randolph Macon College | Wesleyan University, CT |
| Duke University | Lehigh University | Randolph Macon Woman's College | West Virginia University |
| East Carolina University | Liberty University | Rensselaer Polytechnic Institute | West Virginia Wesleyan College |
| ECPI | Longwood University | Rice University | Wheaton College |
| Elizabeth City State University | Lynchburg College | University of Richmond | The College of William & Mary |
| Embry University | Mary Baldwin College | Roanoke College | University of Wisconsin |
| Emory University | Maryland Institute College of Art | Rochester Institute of Technology | Yale University |
| Ferrum College | University of Maryland | St. Francis College | |
| Flagler College | Marymount Manhattan | St. Mary's College | |
| | Mary Washington University | | |