

2024 ACADEMY SENIOR PROJECT PRESENTATION SCHEDULE: Guests will need to check-in with our front desk. Bring your ID and allow time for parking and check-in. Presentations begin and end on-time.

<b>February 22, B Day (Thursday)</b>					
<b>Block 1.1</b> 7:30 am – 7:50 am	<b>Block 1.2</b> 7:55 am - 8:15 am	<b>Block 1.3</b> 8:20 am – 8:40 am	<b>Block 2.1</b> 9:00 am – 9:20 am	<b>Block 2.2</b> 9:25 am – 9:45 am	<b>Block 2.3</b> 9:50 am – 10:10 am
Chloe Minnis	Corinne Scott	Anna Kain-Kuzniewski	James Cummings	Caleb Tomberlin	Brooks Villa
My project spreads awareness about salt marsh restoration and compares the ecological benefits of different artificial shorelines.	My project compares the medical environments of a veterinarian and a surgical nurse, focusing on the topic of nutrition.	My project involves exploring the career of a pilot and the pathway to get there. I specifically have a focus on women in military aviation.	My project is based on sports analytics. I shadowed with the Norfolk Tides and focused on data analysis and distribution.	After shadowing at S&S Precision, a local military product manufacturing firm, I designed and manufactured a product that benefits fishermen and the environment.	My project is based on material science. The purpose of it is to explore the types of materials and their respective properties based on the structure.
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			Melanie Dunaway	Katelyn Snow	Chloe McFarland
			My project is based on sports marketing following shadowing with a AAA baseball team. My product is based on the efficiency of advertisements during OLHS basketball games.	After shadowing at Salem Veterinary Clinic, my product researches common health conditions in cats including treatments and prevention methods.	After shadowing at EVMS in an endocrinology clinic, I created resources to help patients better understand the process of gender-affirming hormone therapy.

<b>February 23, A Day (Friday)</b>					
<b>Block 1.1</b> 7:30 am – 7:50 am	<b>Block 1.2</b> 7:55 am - 8:15 am	<b>Block 1.3</b> 8:20 am – 8:40 am	<b>Block 2.1</b> 9:00 am – 9:20 am	<b>Block 2.2</b> 9:25 am – 9:45 am	<b>Block 2.3</b> 9:50 am – 10:10 am
Teagen Alexander	Matthew Bach	Daved Holloway	Lex Wolf		Dominic Weir
I shadowed at MAR Surf Exchange and later created a short documentary about the design of surfboards.	Combining CAD and set design, I shadowed a set designer at TCC to learn how best to assemble sets and model them digitally.	After shadowing at Direct Sports Performace, my senior project and research educated athletes on ACL and knee injury prevention & rehabilitation.	I shadowed a pediatric dentist and learned about all the different issues associated with kids and their oral health.		I interned at Jefferson Labs, a particle accelerator lab. I researched elastic hadron scattering and created a Jupyter Notebook to introduce data analysis at the lab.
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Summerlin Gates	Molly Ryan Gates	Allison Ragudo	Kyle Bluhm	Abigail Johnson	Emma Johnson
My project is about interning with the fire department and my research on lithium-ion battery fires the their chemical reactions.	I shadowed two veterinarians Following that experience, I researched dogs with cleft plates.	My project focuses on the respiratory system and lung diseases. Over the summer, I shadowed a Physician Assistant at Virginia Beach General Hospital.	I shadowed a cardiologist and created a product on the various medical devices that are commonly implanted in the heart.	I shadowed a Pediatrician during the summer and completed research and a product on sleep deprivation.	I shadowed a water quality lab manager at the Hampton Roads Sanitation District. Using that experience, I designed a cellulose acetate water filter.

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<b>February 28, B Day (Wednesday--Founders' Week)</b>					
<b>Block 1.1</b> 7:30 am – 7:50 am	<b>Block 1.2</b> 7:55 am - 8:15 am	<b>Block 1.3</b> 8:20 am – 8:40 am	<b>Block 2.1</b> 9:00 am – 9:20 am	<b>Block 2.2</b> 9:25 am – 9:45 am	<b>Block 2.3</b> 9:50 am – 10:10 am
			Kate Rotolo & Ashani Warusavitharana		Yuna Pak
			We shadowed Tymoff + Moss Architects, Sentara physicians, and an ODU computer science professor before senior year. Our product includes a 2D, 3D, and physical model of a Maternal-Fetal Retreat Center, intending to bridge architecture and medicine.		I researched mRNA modification at Eastern Virginia Medical School and created a Reproductive Sciences Laboratory Module/website.
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Mert Yercel	Elijah Manuel, Lambert Edigin, and Steve Philipose				
My project focuses on the disparity between the growth of AI and Cybersecurity and the education around it.	Our team worked with ODU's GenCyber summer program to gather information about our own topics of interest in cybersecurity and educate younger students on such topics as well as internet safety.				

<b>February 29, A Day (Thursday-Founders' Week)</b>					
<b>Block 1.1</b> 7:30 am – 7:50 am	<b>Block 1.2</b> 7:55 am - 8:15 am	<b>Block 1.3</b> 8:20 am – 8:40 am	<b>Block 2.1</b> 9:00 am – 9:20 am	<b>Block 2.2</b> 9:25 am – 9:45 am	<b>Block 2.3</b> 9:50 am – 10:10 am
				Grace Thilenius	Meghan Paclob
				At Sentara Princess Anne Hospital, I shadowed multiple nurses in the Family Maternity unit. My product educates youth in Eastern Virginia regarding pregnancy and sexual wellness.	I participated in the summer program Kode with Klossy, which teaches computer science and engineering topics. My product is a website that teaches others about web development.
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Yuhang Zhang	Reagan Labert	Sam Lindsey	Nora Garraty	Ralitsa Hovanesian	Elizabeth Tucker
I shadowed an oncologist with a specialty in hematology. Through this opportunity, I was able to learn about blood-related cancers.	At Eastern Virginia Medical School, I investigated the potential of using RNA therapeutics to address female infertility and improve In Vitro Fertilization.	I shadowed the head of the Brock Center Environmental program and learned a lot about integrating sustainability in everyday life.	I shadowed the media specialist at Eastern Virginia Medical School and learned how to plan, film, and edit videos.	Following 2 summer flight programs, I obtained my Private Pilot's License and created a free resource for all to have the ability to explore flight.	My project explores the intersection between architecture and the cognitive science of aesthetics. My product includes home designs that use our biological preferences to inspire beauty.

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<b>March 7, A Day (Thursday)</b>					
<b>Block 1.1</b> 7:30 am – 7:50 am	<b>Block 1.2</b> 7:55 am - 8:15 am	<b>Block 1.3</b> 8:20 am – 8:40 am	<b>Block 2.1</b> 9:00 am – 9:20 am	<b>Block 2.2</b> 9:25 am – 9:45 am	<b>Block 2.3</b> 9:50 am – 10:10 am
Kaden Robertson	Gage Spade	Mattox Cesil	Julianna Angeles	Tam Ha	Joshua Han
I shadowed at Agape, a place that offers ABA services. My senior project/product aims to inform people about ABA as a career and its growth potential.	Optometry and eye disease-related project.	I helped introduce this year's academy juniors into the world of 3D modeling and CAD while setting up a makerspace-type system for the 3D printers in room 170.	I completed research on music therapy and conducted an experiment on high school musicians, investigating their emotional awareness with pieces of music.	I shadowed a veterinarian at Bostic Veterinary Hospital. My product is a surgery checklist and website that informs pet owners about the general procedures of surgeries.	I collected data to perform tests provided by Mr. Mangabat. My senior project brings awareness to healthcare disparities among East Asian Americans.
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Rev Renukunta	Aneesh Desai	Aneliya Lahunchyk	Emmery Flanagan	Morgan Davis	Jeremy Dunbar
I worked with an ODU professor to analyze quantitative and qualitative data for the 2011 VA Earthquake. We also regenerated a shakemap for the earthquake.	I shadowed a mechanical engineer at PACE Collaborative. My project was creating a website about the importance of energy efficiency.	I was an intern at Yellow Dog Software Company over the summer. My product is a website focusing on spreading awareness on cybersecurity.	I shadowed a behavioral interventional specialist at Plaza Annex. My product is a children's book that utilizes social-emotional regulation techniques.	I shadowed a chemist working at HRSD's wastewater surveillance program. My product was an instructional video about the KingFisher, a piece of equipment used at HRSD.	My project focuses on the impacts of different mouthpiece designs, from a variety of manufacturers, on the auditory outputs from a trumpet.

<b>March 8, B Day (Friday--International Women's Day, Ladies Only Today)</b>					
<b>Block 1.1</b> 7:30 am – 7:50 am	<b>Block 1.2</b> 7:55 am - 8:15 am	<b>Block 1.3</b> 8:20 am – 8:40 am	<b>Block 2.1</b> 9:00 am – 9:20 am	<b>Block 2.2</b> 9:25 am – 9:45 am	<b>Block 2.3</b> 9:50 am – 10:10 am
Esha Singh	Brenna McCarty	Julia Lee	Aubrie Fowler	Ava Mae Swafford	Jenny Vu
I shadowed a pediatric neurologist at CHKD. My project focuses on the connection between neurological disorders and sleep medicine.	I shadowed a physical therapist at CHKD Sports Medicine. My product focuses on educating soccer players on injury prevention.	Shadowed a small animal veterinarian at Pungo Veterinary Clinic. My research focuses on puppy health and care.	Shadowed a research biologist at the ODU Center for Bioelectronics. My research focuses on the intersection of introductory biology and stem cell research.	My experiment explores the efficacy of Vision Therapy Tracking exercises, and how they can be used for people diagnosed in their teens	I studied seizures in worms at EVMS. My research involves histological and behavioral analyses of seizure behavior to aid in human treatments.
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Vanessa De La Cruz	Iana Niknezhad	Abigael Selkirk	Toni Hill	Alli Orchard-Hays	Kimaya Ranjan
I shadowed in the hematology lab at Sentara. My project focuses on educating our school about the importance of blood and how donations save others.	My project involves research at the Eastern Virginia Medical School, where I researched mRNA therapeutics for women's infertility	I participated in an internship program called the Public Archaeology Institute at Colonial Williamsburg. My project focuses on the scientific ways of artifact preservation,	I shadowed a Certified Nurse and Anesthetist at Sentara Princess Anne Hospital. My product focuses on educating my peers on the basics of anesthesiology through a surgical case study.	I shadowed a pediatrician with CHKD. My product focuses on the increase of vaccine hesitancy since the COVID pandemic, and why childhood vaccines are important.	I shadowed an oceanography professor at ODU learning about runoff nutrients. My product is a hydroponic garden that attempts to address the root causes of nutrient runoff.

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<b>March 14, B Day (Thursday)</b>					
<b>Block 1.1</b> 7:30 am – 7:50 am	<b>Block 1.2</b> 7:55 am - 8:15 am	<b>Block 1.3</b> 8:20 am – 8:40 am	<b>Block 2.1</b> 9:00 am – 9:20 am	<b>Block 2.2</b> 9:25 am – 9:45 am	<b>Block 2.3</b> 9:50 am – 10:10 am
Trey Hancock	Landon Luzak	Erica Rosario	Patrick Knowles	Luthiya Philip	Jae Cook
I shadowed emergency and primary care providers and researched continuous glucose monitoring for diabetes.	I shadowed a retinal specialist at the Wagner-Kapoor Institute. I used what I learned from shadowing to teach an anatomy class about the eye.	After shadowing scientists and engineers LifeNet Health, I wrote an article on the potential of tissue engineering to replace animal usage in the medical field.	I completed an MIT open course on robotics and learned how to code in C++. I used the skills I learned from these sources to build an operational prototype of a dog-like robot.	I shadowed a therapist at Hampton Mental Health Associates to learn about mental health disorders and stressors, especially in teenagers.	My project involves research into the linguistic conventions of scientific writing and the influence different linguistic elements have on the impact of the literature.
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Nathan Brock	Alessandro Panecaldo	Jack Hancock	Owen Wilbricht	Korhan Acikgoz	Michael Vo
Research: I created a program that can calculate an individual's tibia length with over 90% accuracy, which has applications in prosthetics.	I shadowed an electrical engineer and learned about power distribution systems and arc flash and created a report for the distribution system of Ocean Lakes.	I shadowed an urgent care physician and emergency medicine professionals over the summer. I used what I learned to teach a biology class about the potential career field.	Following a Summer Governor's School for Math, Science, & Technology course, "Science of Strength," I completed research on both financial and player performance sports analytics.	I volunteered at Abelt Organic Chemistry Lab at William and Mary where they currently focus on fluorescent chemosensors.	I shadowed at Newtowne Dental Lab and was guided through the nuances of dental technology such as its methods, routines, and guidelines.

<b>March 15, A Day (Friday)</b>					
<b>Block 1.1</b> 7:30 am – 7:50 am	<b>Block 1.2</b> 7:55 am - 8:15 am	<b>Block 1.3</b> 8:20 am – 8:40 am	<b>Block 2.1</b> 9:00 am – 9:20 am	<b>Block 2.2</b> 9:25 am – 9:45 am	<b>Block 2.3</b> 9:50 am – 10:10 am
William Bettis	Jack Marchesi	Natalie Patton	Canon Robins	Ethan Herrell	Jaden Campos
This engineering design project looks at how the shape of a rocket's components can affect its flight performance.	After shadowing an anesthesiologist in the operating room, I developed my own realistic model of the lumbar spine for neuraxial anesthesia placement.	I researched different motivational theories and the psychology behind persuasion and created a survey in order to compare and understand what motivates different people and why.	I researched machine learning and data analytics in sports, creating a multiple linear regression to predict the final outcome of NBA games based on halftime statistics.	I shadowed the head assistant coach at Villarreal CF, a professional Spanish soccer team, learning how technology integration helps increase performance & reduce injury risk.	While shadowing a developmental psychologist at CHKD, I learned about Autism Spectrum Disorder and how it is diagnosed.
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Brandon Cheng	Jarrett Yee	Vincent Yi	Anneliese Boggs	Travis Snell	Ryan Goodroe
I shadowed a pediatric optometrist and took an HTML and CSS course on freeCodeCamp to code a website on strabismus and amblyopia.	I shadowed a general dentist and researched the correlation between dental health and the body's systemic health.	I shadowed at the ODU Frank-Reidy Center for Bioelectrics, conducting research using nanosecond electric pulses as a tissue ablation treatment.	After shadowing an electrical engineer, I learned about the physics of sound waves and how properties of sound play a role in the design and function of audio systems.	My engineering design product seeks to utilize the rain flow through a gutter to power a hydroelectric generator, providing emergency power during storms.	I shadowed an ODU professor and some of his PhD students over Zoom, learning about machine learning and working on ML projects with the students.

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<b>March 21, A Day (Thursday)</b>					
<b>Block 1.1</b> 7:30 am – 7:50 am	<b>Block 1.2</b> 7:55 am - 8:15 am	<b>Block 1.3</b> 8:20 am – 8:40 am	<b>Block 2.1</b> 9:00 am – 9:20 am	<b>Block 2.2</b> 9:25 am – 9:45 am	<b>Block 2.3</b> 9:50 am – 10:10 am
Zayd Hasan	Austin Mao	Kaia Jackson	Raynor Lizan	Ryan Studley	Sean Burke
I conducted research on the cost to performance limit of bioprinting, which is a method of precisely constructing biological structures.	I shadowed at ODU learning about image processing algorithms and applying them to an underwater environment.	My project highlights the opportunities afforded to students and families of VBCPS who are facing mental health or substance use struggles. This summer, I shadowed a CRNA at Virginia Beach Ketamine and Wellness,	I shadowed a revenue auditor at the City of Chesapeake’s city hall, and my project takes a deep dive into audits and the economic field in general.	Following a shadowing under a Turf Management professional, my project compares natural grass and artificial turf.	I shadowed a microbiology professor and a surgical oncologist. I created a project surrounding pediatric cancer and its lasting effects on both patients and those around them.
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Grayson Menzel	Lawrence Mercado	Regan Bates	Alex Cutler	Meilin Ranjan	Samuel Kidd
I shadowed the assistant vice president of IT and cyber security at a government contracting firm and developed a website providing information on the topic.	I made a chess engine. I shadowed a senior software engineer and used my coding experience to develop a chess AI.	My project created a rocketry club at Ocean Lakes which allowed students to apply physics outside of the classroom as we participated in the American Rocketry Challenge.	For my project, I went to the Summer Seminars at SCAD and used what I learned there (as well as many hours of research) to make a comic that teaches about exoplanets.	I conducted an experiment to estimate microplastic concentrations in VB waterways	I participated in the Virginia Aerospace Science and Technology Scholars (VASTS) program and designed a human Mars mission.

<b>March 22, B Day (Friday)</b>					
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Nick Ward	Lena Rice	Nimish Nookala	Mark Chernov	Ian Buhner	Aboubakr Sissoko
Finance and Economics related project.	My experiment is based on Ken’ichi Miyazaki’s 1988 <i>Musical Pitch Identification by Absolute Pitch (AP)</i> on a different sample group to test the integrity of the results.	I shadowed an interventional cardiologist at Sentara Leigh and created an animation that demonstrates the use of a stent.	I used Python and astrophysics to find the parameters of an unidentified planet from the Transiting Exoplanet Survey Satellite.	I shadowed a veterinarian over the summer and created a video series on YouTube about various dog breeds.	I shadowed at an endocrinology clinic over the summer, created a website for informing students about thyroid function and dysfunction.
<b>Block 3.1</b> 10:30 am – 10:50 am	<b>Block 3.2</b> 10:55 am-- 11:15 am	<b>Block 3.3</b> 11:20 am-- 11:40 am	<b>Block 4.1</b> 12:35 pm-- 12:55 pm	<b>Block 4.2</b> 1:00 pm – 1:20 pm	<b>Block 4.3</b> 1:25 pm-- 1:45 pm
	Collin Murns	Roman Sablan	Kayleen Iguban		
	I shadowed at an engineering firm in order to gain the knowledge needed to redesign a troublesome intersection in our area.	My materials science research experiment investigated titanium dioxide nanoparticles and concrete.	I shadowed a clinical audiologist and created a presentation based on my research on teen hearing loss.		