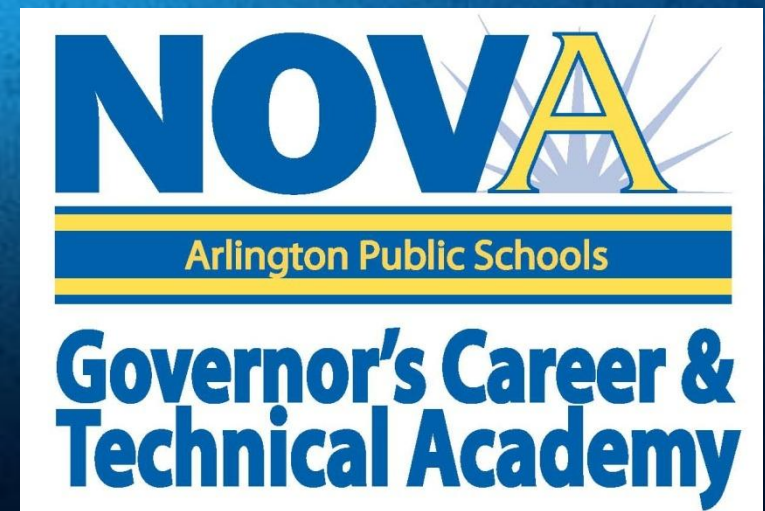




Opportunities for Gifted and Talented Students at the Arlington Career Center in 2010-2011

<http://www.apsva.us/careercenter>

- Governor's Career and Technical Academy
Arlington (GCTAA)
- Pathways
- Dual Enrollment
- Integrative STEM
- Project-Based Learning



These slides can be found at tiny.cc/accgifted

Enrichment and PRIME Programs

Nancy Opsut, Coordinator -- nopsut@arlington.k12.va.us
(703) 228-5730

- **Enrichment Program** -- Early Release Wednesday, Saturday and Summer (July) Programs; classes include TV-Multimedia; LEGO Robotics; Computer Programming; and, Engineering. For a complete listing, go to the lefthand "Enrichment" tab at: <http://www.apsva.us/careercenter>
- **PRIME Internships** --an internship program for gifted high school students designed to provide students with an opportunity to be placed as interns in professional organizations that relate to their fields of interest.

Courses and Special Credits

Arts, AV & Communications

- Digital Photography II (28608) **DE**
- Television & MultiMedia Production I (28689) and II (28690) **V**
- Digital Visualization: Animation and Virtual Worlds (28459)

Information Technology

- Computer Programming (26643) **DE**
- Advanced Topics in Information Technology (26645) **DE**

STEM

- Aviation Technology (28731) **C**
- Computer Assisted/Architectural Drawing (28435) **DE**
- Computer Assisted/Engineering Drawing (28435) **DE**
- Engineering III (26672) **CV** and IV (26671) **CV**

Courses and Special Credits (continued)

Health & Human Services

- Advanced Animal Science/Biomedical Investigations (28084) **S/C**
- Biotechnology Techniques and Applications (28467)
- Physical Therapy / Sports Medicine (28332) **S**

Family & Consumer Science

- Early Childhood Education II (28236) **V/DE**

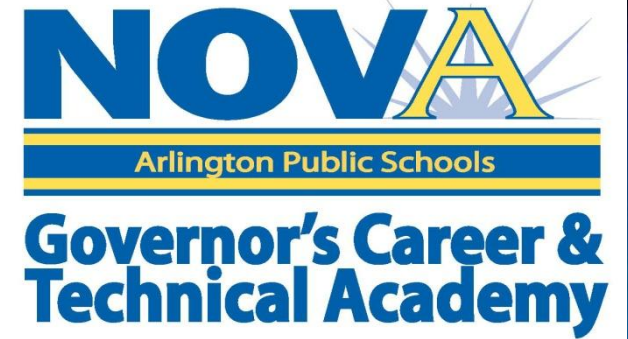
Law & Public Safety

- Forensic Technology / Biotechnology (28325)
- EMT/Human Anatomy and Physiology (28334) **S/V/CV/C**

GCTAA Highlights

- Dual-Enrollment (DE) with Northern Virginia Community College (NOVA)
- Cross-disciplinary instruction (Integrative STEM)
- Stretch projects in real work environments
- Student job shadowing and internships
- Summer college coursework
- Better preparation for work and higher education

Dual Enrollment



- GCTAA students take the NOVA Compass placement exam at the Career Center free-of-charge.
- GCTAA students also take the required one-credit NOVA college orientation class (SDV100) at the Career Center free-of-charge. This class begins their college transcripts.
- GCTAA students may then choose from 11 dual-enrolled CTE classes in 7 different pathways. For the current list, please select "About Us/College Credit" at www.apsva.us/careercenter.

We're teaching more than skills...

- Realize aspirations
- Live to
 - learn
 - contribute
 - challenge
 - gain wisdom
 - make a difference
 - touch lives
 - have fun



Interdisciplinary connections

Collaborating teachers build connections between:

- Biology
- Chemistry
- Physics
- Earth and Space Science
- Algebra
- Geometry
- Trigonometry
- Statistics
- Calculus
- Multivariable Calculus
- Technology / Engineering
- CTE courses



Another E in STEM?

- Entrepreneurship
 - Motivational for students
 - Business partnerships for schools, teachers and students



Model for engaging students

- Invest in student-focused pedagogies
 - Gardner, Dewey, Vygotsky, Piaget and Duckworth
- Connect with students as individuals
 - Tap motivational and emotional curiosity
- Consider Developmental Factors
 - Understand brain research
- Stimulating learning environment
 - Recognize environmental and cultural preferences

Opportunities through Project-Based Learning

- Real-world exploration of curiosities, problem-solving and design-driven inquiry;
- Teacher becomes a facilitator; student becomes the teacher; all learn collaboratively; and
- Whole-child, interdisciplinary and trans-disciplinary learning.



For more information:

David Welsh

Arlington Career Center/Governor's Academy

rdavidw@gmail.com

Jim Egenrieder

STEM Education, APS-CTAE

jim@STEMeducation.us

ACC/GCTAA web site: <http://www.apsva.us/careercenter>

These slides can be retrieved at tiny.cc/accgifted