Accelerated College and Employability Skills (ACCESS) Academy

Accelerated **C**ollege and **E**mployability **S**kills (ACCESS) Academy

- A lab school that provides an innovative educational experience to high school students, who have not historically had access to opportunities and pathways that meet their needs and lead to **high-demand and well compensated career opportunities**, as they simultaneously work toward **two- and four-year college degrees**.

- A partnership among three of the largest educational institutions in the region:
  - **George Mason University (Mason)**
  - **Northern Virginia Community College (NOVA)**
  - **Loudoun County Public Schools (LCPS)**

Program Model - Innovative Teaching and Learning Methods

PBL-IT Curriculum Design:
IT curriculum designed within a problem-based learning approach, with increasing levels of complexity each year

Employability Skills:
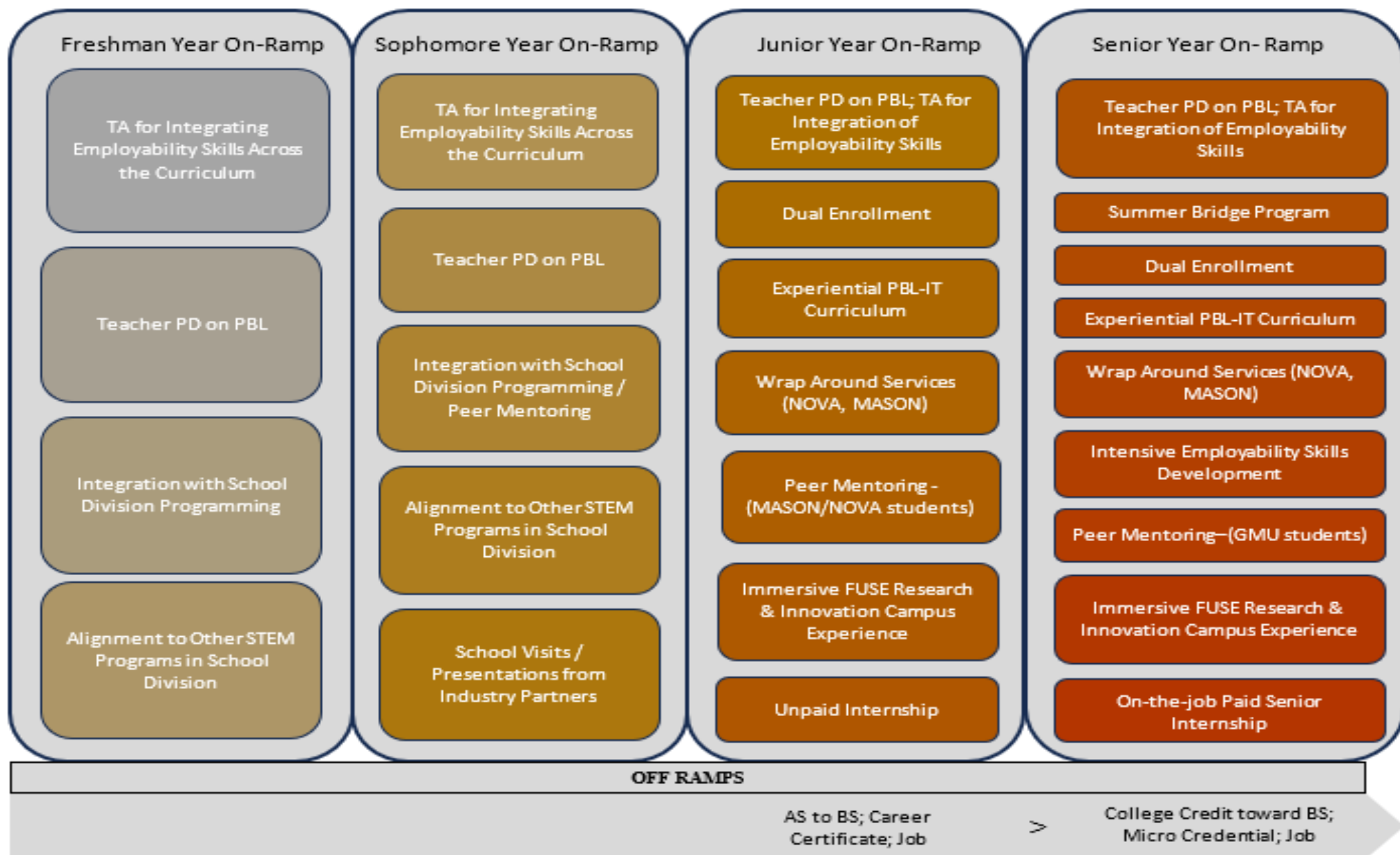Systems Thinking, Critical Thinking, Collaboration, Flexibility, Communication, etc.

Competency-Based Education:
Learning outcomes aligned to on-the-job competencies; Performance-based assessments

Learn-and-Earn Model:
Paid internships with industry partners

Freshman Year On-Ramp	Sophomore Year On-Ramp	Junior Year On-Ramp	Senior Year On-Ramp
TA for Integrating Employability Skills Across the Curriculum	TA for Integrating Employability Skills Across the Curriculum	Teacher PD on PBL; TA for Integration of Employability Skills	Teacher PD on PBL; TA for Integration of Employability Skills
Teacher PD on PBL	Teacher PD on PBL	Dual Enrollment	Summer Bridge Program
Integration with School Division Programming	Integration with School Division Programming / Peer Mentoring	Experiential PBL-IT Curriculum	Dual Enrollment
Alignment to Other STEM Programs in School Division	Alignment to Other STEM Programs in School Division	Wrap Around Services (NOVA, MASON)	Experiential PBL-IT Curriculum
	School Visits / Presentations from Industry Partners	Peer Mentoring - (MASON/NOVA students)	Wrap Around Services (NOVA, MASON)
		Immersive FUSE Research & Innovation Campus Experience	Intensive Employability Skills Development
		Unpaid Internship	Peer Mentoring—(GMU students)
			Immersive FUSE Research & Innovation Campus Experience
			On-the-job Paid Senior Internship

OFF RAMPS

AS to BS; Career Certificate; Job > College Credit toward BS; Micro Credential; Job

Transdisciplinary Collaborations

Industry:

Authentic Problems & Case Studies

Internships

Mentors

Site Visits

Guest Presenters

CEHD and IT:

PBL IT Curriculum

Research & Innovations in Teaching & Learning

Mason, NOVA, LCPS, Other School Divisions:

Learning Ecosystem

Dual Enrollment

Wrap Around Services

Student Population

- ACCESS Academy will serve at-risk students in grades 9-12.

- During the first year (2025-2026), ACCESS Academy will include a total of 120 students from grades 9-12 (n=30 in each).

- Students will be introduced to PBL, employability skills, and IT career talks in grades 9-10 and then provided with dual enrollment core curriculum coursework and specialized problem-based learning IT coursework and experiential learning activities in 11-12.

- The lab school will be open to any student who resides in the Commonwealth of Virginia.

A Day in the Life of an ACCESS Academy Student – NOVA Loudoun

- Students arrive at the NOVA Loudoun Campus.
- Students are introduced to a problem-based learning (PBL) scenario by faculty. The task invites them to a project meeting to review requirements of a Request for Proposals (RfP) to build a website and database for a small start-up.
- Students collaboratively establish the requirements of the RfP and develop questions to address. Peers express differing viewpoints about the technology design required of the RfP.
- Mentors, post-docs, and faculty provide support and coach students supporting the development of a plan of action based on key principles, concepts, and the use of evidence. Students are guided as they use active learning strategies.
- Lunch break. Students informally continue to discuss class activities.
- Students break into smaller groups to tackle initial analysis tasks, test preliminary ideas, and answer questions to report to the larger group.
- Students synthesize and process information. As they receive feedback, questions may be changed, and flexible thinking is practiced.
- Large group reporting and review, reinforcing adaptability based on evolving definition of the need. The plan for future work is established.
- Students depart from ACCESS Academy. Students can continue work remotely or participate in optional extracurricular or school division activities.

A Day in the Life at FUSE

- Arrival at the lab school and introduction to the day's project by research faculty and mentors, emphasizing relevance to current technology trends and industry needs.
- Collaborative brainstorming session with mentors and peers to outline project goals, tasks, and timelines, promoting critical thinking and problem-solving skills.
- Hands-on experimentation and prototyping phase, working side by side with mentors to develop and test innovative technology solutions, fostering collaboration and communication.
- Lunch break, during which students engage in informal discussions with mentors, sharing career goals, relevant career experiences, new ideas, and/or receive feedback on project progress.
- Seminar on systems thinking and design principles led by post-doc or PhD student mentors, providing theoretical frameworks to guide project development and implementation.
- Continued project work, with an emphasis on applying learned concepts to overcome challenges and optimize technology solutions, further enhancing critical thinking and problem-solving abilities.
- Review and reflection session, where students discuss project outcomes, lessons learned, and future improvements, honing analytical evaluative skills.
- Departure from the lab school, with optional opportunities for students to continue project work remotely or participate in extracurricular activities related to information technology, supported by mentor guidance.
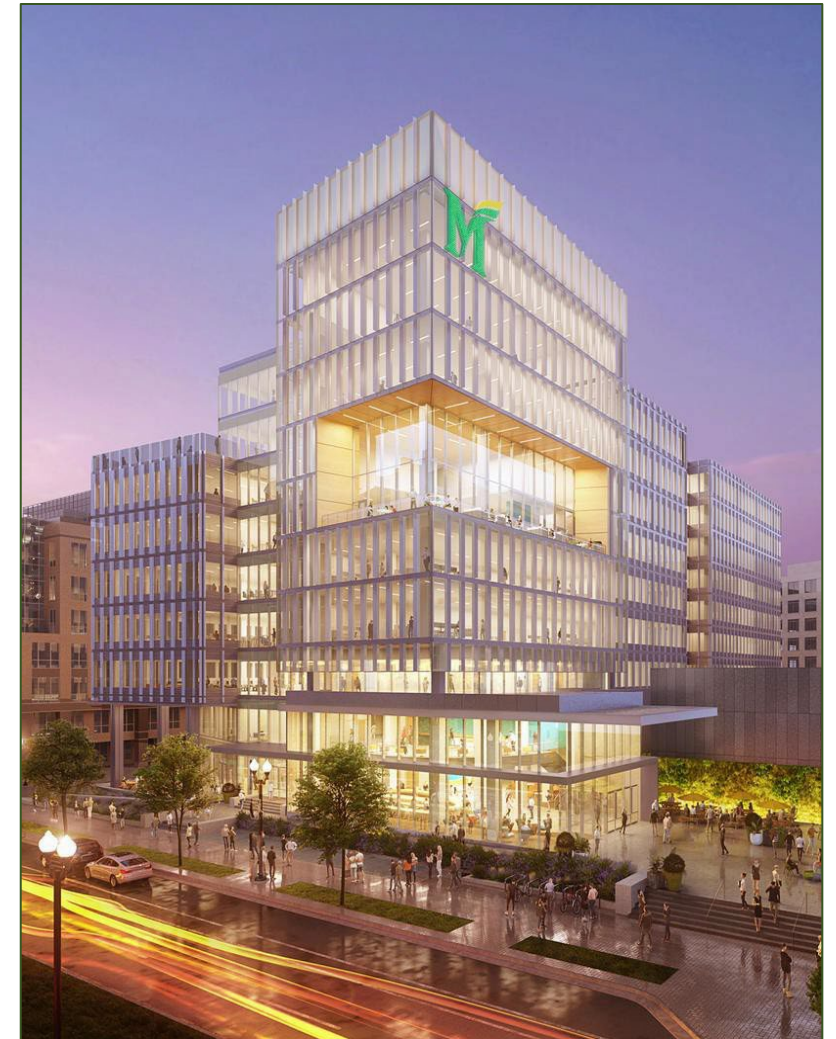
Over the six-year period of performance, the cost of the Lab School is estimated to be $5,199,991 with $1,000,000 of startup and $3,360,000 of projected operating revenue needed during years zero through four for a total of $4,360,000 requested from the Virginia Department of Education. Operating revenue in years 1-5 is based on $7,000 per student and 120 students for a total of $840,000 per year. George Mason University will provide in-kind support during years 1-5 and hopes to secure future philanthropic gifts and grants to support remaining proposed expenditures in year 5.

Figure A: Illustrative Itemized Budget Spreadsheet

	Yr 0	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Total	Comments
Lab School Operating Costs								
Personnel	368,006	529,437	555,373	582,605	602,502	585,138	3,223,061	per lab school application pages 40-43
Non-personnel Expenses	380,154	93,033	67,100	39,865	19,970	36,797	636,919	per lab school application pages 40-43
Staff development	46,500	46,500	46,500	46,500	46,500	46,500	279,000	per lab school application pages 40-43
Equip/Tech/Furniture	-	-	-	-	-	-	-	
Admin Fee	205,340	171,027	171,027	171,027	171,027	171,563	1,061,011	per lab school application pages 40-43
Total Lab School Operating Costs	**1,000,000**	**839,997**	**840,000**	**839,997**	**839,999**	**839,998**	**5,199,991**	**[A]**
Annual Enrollment (# of pupils)		120	120	120	120	120	600	
Cost per pupil ($)		$7,000	$7,000	$7,000	$7,000	$7,000	$1,733,330	
Estimated Lab School Funding								
Planning Grant	199,789						199,789	per lab school planning grant
Start-up	1,000,000						1,000,000	per lab school application page 37
Operating		840,000	840,000	840,000	840,000		3,360,000	per lab school application page 37
Subtotal College Partnership Lab School Fund	**1,199,789**	**840,000**	**840,000**	**840,000**	**840,000**	**-**	**4,559,789**	
Outside Funding								
Local share			-	-	-	-	-	
Grant funding			-	-	-	440,000	440,000	per lab school application page 43
Philanthropic funding			-	-	-	400,000	400,000	per lab school application page 43
Higher education institution support		-	-	-	-		-	
Business & industry partner contributions			-	-	-	-	-	
Fundraising and development			-	-	-	-	-	
Subtotal Other Funding	**-**	**-**	**-**	**-**	**-**	**840,000**	**840,000**	
Total Funding	**1,199,789**	**840,000**	**840,000**	**840,000**	**840,000**	**840,000**	**5,399,789**	**[B]**

Funding Sustainability? **Yes** Funding is greater than costs

Sustainability