

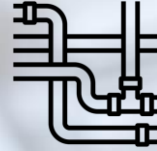
Computer Science Lab School



Program Rationale



Support need for
Computer
Science/Computer
Engineering professionals



Prepare students for
technology talent pipeline
before high school



Provide innovative
learning approach for
middle school students

Mission

CSLS's mission is to empower underrepresented middle school students through transformative opportunities and experiences. With an innovative focus on computer science principles, we cultivate curiosity and cultural awareness, empowering students to actively shape their educational journey. As CSLS scholars, inquirers, and contributors, our students take proactive ownership of their learning, embodying the attributes that define our dynamic educational community.

Our mission extends beyond the classroom, aiming to positively impact workforce development by nurturing a diverse pool of talent equipped with the skills demanded by the evolving technology sector. CSLS envisions preparing students not just as consumers but as creators, contributing meaningfully to the workforce and fostering innovation within Title I communities.

Vision

Our vision is to empower middle school students by providing a pioneering program of study that not only equips them to excel in high school coursework, but also prepares them to confidently navigate the technology talent pipeline. CSLS envisions a future where students, armed with technical prowess acquired through an integrated and design thinking framework, contribute meaningfully to the ever-evolving world of computer science.

In realizing this vision, CSLS becomes a catalyst for positive change in workforce development. Our graduates emerge not only as academically proficient individuals, but as innovative professionals ready to shape the future of the technology sector. CSLS envisions a workforce that reflects the diversity and creativity inherent in Title I communities, fostering economic growth and driving technological innovation.



Computer Science
Curriculum



Design Thinking
Framework



Enhanced
Electives



Innovative
Classroom Design



Professional
Development



Community
Partnerships

Instructional Approach and Innovations

1. coursework emphasizing the integration of computer science and computational thinking with other STEM and humanities content areas
2. professional development for current teachers
3. the development of a robust student-teacher program to prepare future educators for interdisciplinary computer science teaching
4. the development of mentoring programs connecting middle school students and teachers with college students and professors and regional industry leaders
5. the creation of a school leadership community of practice embedded with professional development

Instructional Approach and Innovations

Computer Science Integration	Enhanced Electives
Capstone Experiences/Exhibitions of Learning	Electronic Portfolio
Business Mentors	Design Thinking & Problem-Based Learning
Authentic Assessment	Collaborative Learning Spaces
Integration of Educator Preparation	Integrated Research

A Day in the Life of a CSLS Student

8:45-8:55 a.m.	Arrival, Breakfast, Lockers
8:55-9:40 a.m.	Bell 1, Tiger Time, Lab School Computer Science, Career Investigations
9:45-10:30 a.m.	Bell 2, Health and Physical Education
10:35-11:20 a.m.	Bell 3, Computer Science Elective
11:25 a.m.-12:30 p.m.	Bell 4, Mathematics
12:35-1:05 p.m.	Lunch
1:10-2:15 p.m.	Bell 5, Science/Social Studies (A/B day)
2:20-3:33 p.m.	Bell 6, English
3:33 p.m.	Dismissal and after-school activities

Business & Industry Partners

- Tidewater Chapter of the American Society of Naval Engineers (ASNG-TW)
- City of Chesapeake - City Manager's Office
- Amazon
- TMI Technical Solutions
- Hampton Roads Executive Roundtable
- Department of Development, City of Chesapeake
- Hampton Roads Workforce Council
- Hampton Roads Chamber
- Virginia Ship Repair Association

Enrollment Projections

2024-2025	2025-2026	2026-2027	2028-2029	2029-2030
Start Up	200	300	300	300

Teacher Preparation & Development

- ODU's Center for Educational Partnerships and CPS collaborating on customized professional development to support integration of computer science instruction into coursework
- Collaborate with ODU's MonarchTeach program to bring STEM/CS teacher candidates into the lab school to collaborate with students and teachers on a computer science integrated project
- Preparing teacher candidates through rigorous, field-based residencies and apprenticeships

Research: Optimizing Impact

- Researcher-practitioner partnerships among ODU faculty and Lab School staff
 - Design-based research will emphasize data-informed decision making
- Evidence-based models of teacher professional development
 - Professional learning communities will focus on cross-curricular CS integration
 - Action research and lesson study will promote learning for pre-service teachers

Evaluation: Establishing a Model

- To what extent are the Lab School components being implemented as planned?
- How are key stakeholders (e.g., students, parents, teachers, faculty) impacted by the Lab School?
- In what ways can the Lab School's sustainability strategies can serve as a model for others?

Figure B: Annual Expenditure Sheet
Sample Budget Expenditure Worksheet

Personnel - Salaries				Yr 0	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
Number	Rate	Run Rate Annual Cost							
<i>* List all position & fully burdened compensation (example below)</i>									
Lab School ODU Coordinator	1	#VALUE!		\$22,000	\$45,000	\$45,000	\$45,000	\$45,000	\$45,000
Academy Director	1			\$141,000	\$147,000	\$152,000	\$155,000	\$160,000	\$165,000
TCEP CS Coordinator, Res & Eval	1			\$22,000	\$25,000	\$26,000	\$27,000	\$28,000	\$25,000
Research & Eval Co-Dir	1			\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000
PD & Curriculum Dev Specialist	1			\$25,000	\$25,000	\$25,000	\$28,000	\$30,000	
Ed Specialist 1	1			\$24,000	\$25,000	\$25,000	\$28,000	\$30,000	
Program Manager	1			\$121,000	\$125,000	\$128,000	\$128,000	\$130,000	\$132,000
CS Instructional Coach	3			\$103,100	\$210,000	\$315,000	\$325,000	\$330,000	\$340,000
Ed Specialist 2	1				\$121,000	\$125,000	\$128,000	\$128,000	
Teachers for Tomorrow	1			\$6,400	\$6,000	\$6,000	\$6,000	\$6,000	
Paraprofessional licensure cohort	1			\$42,000	\$25,000	\$40,000	\$40,000	\$40,000	
Consultants/participant support	~15			\$80,000	\$86,000	\$100,000	\$100,000	\$100,000	\$50,000
Total Personnel Costs		#VALUE!		\$601,500	\$855,000	\$1,000,000	\$1,023,000	\$1,042,000	\$757,000

Non-Personnel				Yr 0	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
Number	Rate	Run Rate Annual Cost							
<i>* List all additional services (examples below)</i>									
Materials & Supplies	200	\$250 c		\$35,000	\$30,000	\$30,000	\$30,000	\$30,000	\$20,000
Reference Books				\$5,000	\$10,000	\$10,000	\$10,000	\$10,000	\$5,000
Copier				\$5,000	\$30,000	\$30,000	\$30,000	\$30,000	\$3,000
Social Media Costs				\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$3,000
Educator Preparation Costs				\$15,000	\$50,000	\$25,000	\$25,000	\$25,000	\$5,000
Curriculum Development Costs				\$80,000	\$10,000	\$50,000	\$50,000	\$50,000	\$30,000
Field Trips/internships/site visits					\$140,000	\$80,000	\$80,000	\$80,000	\$30,000
Research & Eval					\$25,000	\$30,000	\$30,000	\$30,000	\$5,000
Total Non-Personnel Costs			\$0	\$145,000	\$300,000	\$260,000	\$260,000	\$260,000	\$101,000

Staff Development				Yr 0	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
Number	Rate	Run Rate Annual Cost							
<i>* List all staff development costs (examples below)</i>									
Staff development	4	\$1,000 c		\$6,000	\$30,000	\$40,000	\$40,000	\$40,000	\$12,000
Travel	4	\$500 c		\$17,500	\$25,000	\$25,000	\$25,000	\$25,000	\$12,000
Total Non-Personnel Costs			\$0	\$23,500	\$55,000	\$65,000	\$65,000	\$65,000	\$24,000

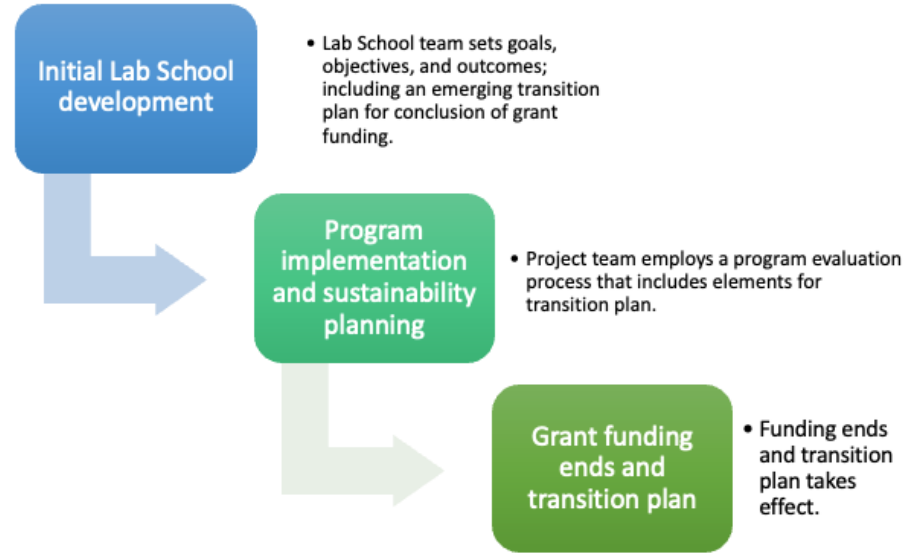
Equip/Tech/Furniture				Yr 0	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
Number	Rate	Run Rate Annual Cost							
<i>* List all staff development costs (examples below)</i>									
Classroom technology/capital assets				\$40,000	\$100,000	\$75,000	\$75,000	\$60,000	\$12,000
Facilities/renovations				\$140,000	\$90,000	\$100,000	\$77,000	\$73,000	
IT support/licenses									
Total equipment/technology/furniture			\$0	\$180,000	\$190,000	\$175,000	\$152,000	\$133,000	\$12,000

Administrative Fees				Yr 0	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
Number	Rate	Run Rate Annual Cost							
<i>* List all costs (examples below)</i>									
University administrative fees				\$50,000					
Total admin fees				\$50,000	\$0	\$0	\$0	\$0	\$0
Total Operating Costs				\$1,000,000	\$1,400,000	\$1,500,000	\$1,500,000	\$1,500,000	\$894,000

Sustainability

Braided sustainability approach
leveraging our CS & STEM
Regional Ecosystem

- Grants
- Development
- Fundraising
- Partnership position base funding
- Institutional commitment



Computer Science Lab School

