



School District U-46

Magnet Academies Curriculum Resource Proposal 2026-2027

Board of Education Presentation

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STEM Academy Curriculum Resource Proposal

Bartlett High School

LEAD Academy Curriculum Resource Proposal

Streamwood High School

BEACON Academy Curriculum Resource Proposal

South Elgin High School

2026-2027

Purpose

This proposal seeks the adoption of updated engineering curriculum at the Bartlett High School STEM Academy and the implementation of new Dual Credit courses in the LEAD Academy at Streamwood High School and the BEACON Academy at South Elgin High School. The unified goals are to:

- Increase student agency and engagement within each academy experience.
- Expand interdisciplinary collaboration across academy courses.
- Replace existing academy courses with rigorous Dual Credit options that enhance college and career readiness.
- Implement Dual Credit courses in accordance with Elgin Community College (ECC) requirements.
- Secure necessary curricular resources as outlined in the Memorandum of Understanding (MOU) with ECC.

Alignment to Strategic Plan

GOALS & MEASURES OF STUDENT PROGRESS



GOAL #1: Building Early Academic & Social-Emotional Foundations

Every student in PreK-Grade 2 will demonstrate academic and social emotional skills for lifelong learning and success.

OUR EQUITY COMMITMENT

We provide every student access to rigorous, developmentally-responsive learning environments that embrace and honor the student's and family's language, culture, and background, recognizing families as a child's first teacher.

MEASURES OF STUDENT PROGRESS

- 1.A Students acquiring foundational social emotional skills at each grade PreK-Grade 2
- 1.B Students acquiring foundational literacy skills at each grade PreK-Grade 2
- 1.C Students acquiring foundational numeracy skills at each grade PreK-Grade 2



GOAL #2: Safety, Sense of Belonging, & Inclusion

Every student will contribute to and experience a welcoming, safe, and inclusive environment that nurtures a sense of belonging.

OUR EQUITY COMMITMENT

We provide safe and inclusive environments that disrupt systemic inequities and ensure every student is valued, connected, and engaged.

MEASURES OF STUDENT PROGRESS

- 2.A Students experience and perceive a supportive school climate that emphasizes safety, inclusion, student-staff relationships, and a strong sense of belonging
- 2.B Student attendance/absenteeism
- 2.C Student participation in co-curricular/extracurricular activities



GOAL #3: Academic Growth & Mastery

Every student will demonstrate at least a year of growth to meet or exceed standards at every grade level.

OUR EQUITY COMMITMENT

We provide every student access to a rigorous, standards-based curriculum, culturally and linguistically appropriate coursework, actionable feedback, and targeted instruction.

MEASURES OF STUDENT PROGRESS

- 3.A Student academic growth and achievement in reading, writing, math and science on state and national assessments
- 3.B Student performance on common assessments aligned to standards
- 3.C Students on track for on-time graduation at each grade level (9-12)



GOAL #4: Ready to Embrace a Diverse & Changing World

Every student will develop skills and interests for successful postsecondary transitions through life, college and/or career.

OUR EQUITY COMMITMENT

We provide every student with quality experiences and support to identify their passions and pursue success at the next level.

MEASURES OF STUDENT PROGRESS

- 4.A Student enrollment and successful completion of a career pathway, CTE, AP, IB, Dual Credit, or State Seal of Biliteracy
- 4.B Students in grades 6-12 completing courses, activities, or experiences aligned to the Post-Secondary and Career Expectations (PACE) framework
- 4.C Students demonstrating growth and achievement of the Qualities in the Portrait of a Graduate

Committee Members-STEM

Member	Role	Department(s)/Specialty
Anthony Glorioso	Teacher	STEM Academy
Christy Knapp	Teacher	STEM Academy
Julie Huber	Teacher	STEM Academy
Joseph Morales	Former Teacher	STEM Academy
Janine Stevens	Former Teacher	STEM Academy
Milena Nedeljkovic	Assistant Director of PostSecondary Success/Former Assistant Principal of STEM	Postsecondary Success
Francisco Javier Rojas Aparicio	Teacher	STEM Academy
Philip Church	Current Assistant Principal of STEM	Administrator Bartlett H.S.
Doreen Roberts	Coordinator of Career and Technical Education/Former Teacher Leader of Educational Pathways Implementation and Design	CTE Coordinator
Melissa Damewood	Former Coordinator of Career and Technical Education	CTE
Mitchell Briesmeister	Former Assistant Director of PostSecondary Success	Postsecondary Success
Timothy Brodeur	Building Principal	Administrator Bartlett H.S.

Committee Members-LEAD

Member	Role	Department(s)/Specialty
Meagen Balzer	Teacher	LEAD Academy
Ryan Sims	Teacher	LEAD Academy
Robert Weihofen	Teacher	LEAD Academy
Myka Kennedy	Assistant Director of Postsecondary Success	Postsecondary Success
Milena Nedeljkovic	Assistant Director of Postsecondary Success	Postsecondary Success
Tracy Stewart	Former Assistant Principal of Innovation	Administrator Streamwood H.S
Doreen Roberts	Coordinator of Career and Technical Education/Former Teacher Leader of Educational Pathways Implementation and Design	CTE Coordinator
Paige Moran	Building Principal	Administrator Streamwood H.S.

Committee Members-Beacon

Member	Role	Department(s)/Specialty
Ben Erickson	Teacher	Beacon Academy
Brina Ulrich	Former Teacher	Beacon Academy
Thomas Bozikis	Teacher	Beacon Academy
Myka Kennedy	Assistant Director of Postsecondary Success	PostSecondary Success
Milena Nedeljkovic	Assistant Director of Postsecondary Success	PostSecondary Success
Renee Reynold	Interim Assistant Principal of Innovation	Administrator South Elgin H.S.
Marcella Sheler	Former Assistant Principal of Innovation	Administrator South Elgin H.S.
Doreen Roberts	Coordinator of Career and Technical Education/Former Teacher Leader of Educational Pathways Implementation and Design	CTE Coordinator
Jon Miquelon	Building Principal	Administrator South Elgin H.S.

Process Timeline

2020–2021

- A District-wide committee of teachers, counselors, administrators, and program/content coordinators began researching and analyzing academy course offerings.
- The committee met multiple times to review course content, gather teacher and student feedback, and identify opportunities for improvement and innovation.

2021–2022

- Early findings highlighted the need for expanded Dual Credit opportunities and improved vertical alignment across academy pathways.
- Initial discussions were held regarding integrating engineering exploration and business innovation courses in freshman and junior years, respectively.

Process Timeline

2022–2023

- The LEAD Academy and District Leadership identified INCubatoredu as a potential Dual Credit course offering.
- STEM committee recommended the addition of an engineering exploration course at the freshman level and more advanced engineering courses for upperclassmen.
- BEACON Academy began exploring alignment of existing courses to Elgin Community College (ECC) Dual Credit offerings and the potential to support College and Career Pathway Endorsements (CCPE).

2023–2024

- LEAD Academy reviewed implementation of Dual Credit with building administration and district departments.
- BEACON and STEM teams analyzed ECC credentialing requirements for existing faculty.
- Courses such as Business 100, Entrepreneurship 101, and Fundamentals of Speech were reviewed and identified as strong matches for academy pathways.

Process Timeline

Fall 2024

- All academy teams reconvened to finalize dual credit proposals and confirm curriculum alignment with Elgin Community College.
- Final recommendations included new course adoptions, teacher credentialing plans, and requests for required Elgin Community College curricular resources.

2025–2026 School Year (Projected Implementation)

- Launch of newly approved dual credit courses across academies.
- Students begin earning early college credit aligned with industry-recognized pathways and endorsements.
- Ongoing evaluation and feedback cycles established to monitor effectiveness and inform future expansion.



BHS STEM Academy Program Overview

The Department of Postsecondary Success and STEM Academy team recommends:

- Texts and resources stipulated by the ECC and U-46 memo of understanding be made available for teachers of indicated classes for the 2025-2026 school year.
- Implementation of new curricular resources and materials, assessments, and rubrics will be mandatory for the 2026-2027 school year.

Standards

PLTW Curriculum aligns with the following Illinois adopted standards:

- NGSS (Next Generation Science Standards)
- ELA Standards
- Math Standards

BHS STEM Academy Course Sequence

Grade	Current Sequence	New Sequence
9th Grade	Integrated Technology Introduction to Engineering Design	PLTW Engineering Essentials Introduction to Engineering Design
10th grade	Principles of Engineers (POE) PLTW Digital Electronics	Principles of Engineers (POE)
11th grade	PLTW Electronic Digital Design	PLTW Digital Electronics-option PLTW Aerospace-option PLTW Civil Engineering Architecture - option
12h Grade	Honors Design and Technology	PLTW Capstone

STEM Academy Course Sequence

Course	Grades	Academy program sequence
PLTW Introduction to Engineering Design (IED)	9	Required
PLTW Engineering Essentials (EE)	9	Required
PLTW Principles of Engineering (PoE)	10	Required
PLTW Digital Electronics (DE) PLTW Aerospace Engineering (AE) PLTW Civil Engineering and Architecture (CEA)	11	Choice - one is required
PLTW Capstone (formerly PLTW Engineering Design and Development)	12	Required

Recommended Resources:

- PLTW creates a comprehensive list for the needed materials to run the course in order to make implementation as simple as possible.
- The Bartlett STEM Academy already includes items such as:
 - CAD 2D and Fusion 360 3D software
 - 3D printers
 - General manufacturing hand tools
 - Larger manufacturing machinery that PLTW courses require.

Cost

Item	Quantity	Total Cost
PLTW Aerospace Engineering start up materials	40 students	\$42,374.00
PLTW Engineering Essentials start up materials	100 students	\$45,276.00
PLTW digital curriculum access included in our current subscription	0	\$0.00
PLTW Core Training (80 hour/teacher) \$2,400 per teacher	4 teachers	\$9,600.00
Hourly rate for teachers to attend training in summer (80 hours/teacher x 4 teachers x \$36.10 instructional rate per hour.	4 teachers	\$11,552.00
Total		\$108,802.00

Cost

- Estimated Annual Cost of Consumables is \$87,646.42.
- Estimated Per Pupil Cost for initial adoption is \$626.04.



SHS LEAD Academy Program Overview

The Department of Postsecondary Success and LEAD Academy team recommends:

- Texts and resources stipulated by the ECC and U-46 memo of understanding be made available for teachers of indicated classes for the 2025-2026 school year.
- Implementation of new curricular resources and materials, assessments, and rubrics will be mandatory for the 2026-2027 school year.

Standards

- These courses are aligned to meet ECC academic requirements. This includes the assessments, rubrics, course objectives, and learning targets.

LEAD Academy Course Sequence

Grade	Current Sequence	New Sequence
9th Grade	LEAD Launch Business for Innovators	Lead Launch BUS 100:Introduction to Business
10th grade	Lead Discover Business for Entrepreneurs/Appreneurship	Lead Discover Business for Entrepreneurs/Appreneurship
11th grade	INCubatoredu™ Business Ethics (Semester)	ENT 101: Entrepreneurship Business Ethics (Semester)
12th grade	ACCELeratoredu™ OR AP Research OR Internship Business Law (Semester)	ACCELeratoredu™ OR AP Research OR Internship Business Law (Semester)

Recommended Resources

BUS 100: Introduction to Business

- *Text: Nickels. Understanding Business. 13th Edition. McGraw Hill, 2019 ISBN: 9781259929434*

ENT 101: Entrepreneurship

- *Text: Hisrich, Peters, and Shepherd. Entrepreneurship. 11th Edition. McGraw Hill, 2020 ISBN: 9781260564068*

Cost

Item	Quantity	Unit Cost	Total Cost
Adobe Premier License	180 students	\$5.00	\$900.00
<i>Understanding Business</i>	90 students + 1 TE	\$184.27	\$16,584.30
<i>Entrepreneurship</i>	90 students + 1TE	\$175.41	\$15,786.90
Estimated Shipping and Handling		\$1,208.09	\$1,208.09
Professional Learning (6 hours/teacher x 24 teachers x \$36.10 instructional rate per hour.	24 teachers	\$36.10 per hour	\$5,198.40
TOTAL			\$39,677.69

Cost

- Estimated ECC Tuition Per-Pupil Cost (for 180 students) is \$9,000.00.
- Estimated Annual Cost of Consumables is \$34,479.29.
- Estimated Per-Pupil Cost (for 180 students) is \$191.55.



SEHS BEACON Academy Program Overview

The Office of Postsecondary Success and Beacon Academy recommends:

- Texts and resources stipulated by the ECC and U-46 memorandum of understanding be made available for teachers of indicated classes for the 2025-2026 school year.
- Implementation of new curricular resources and materials, assessments, and rubrics will be mandatory for 2026-2027 school year.

Standards

- The courses were developed specifically to meet ECC academic requirements. This includes the assessments, rubrics, course objectives, and learning targets.

BEACON Academy

Course Sequence

Grade	Current Sequence	New Sequence
9th Grade	Media and Digital Arts Technology 1	CDN 230: Introduction to Videography
10th grade	Media and Digital Arts Technology 2	CDN 233: Video Editing and Field Production
11th grade	Media and Digital Arts Production	CDN 234: Video Editing and Studio Production
12th Grade	Advanced Media and Digital Arts Production	Advanced Media and Digital Arts Production Fundamentals of Speech

Recommended Resources

- *Communicating with Others: A Guide to Effective Speaking in a Complex World*, Anderson, T., Dittus, J, Walz, M and Shadwell, G. is recommended for Fundamentals of Speech.
- Adobe Premiere allows students to edit graphics, videos, and traditional and digital photography. This is required software for all three videography courses: Introduction to Videography, Video Editing and Field Production, and Video Editing and Studio Production.

Recommended Resources

- Canon camera 8Ti kit
- Sachtler 752 Mark II Aluminum Tripod system
- ENG (Electronic News Gathering) kits which are 'go kits' for students to videotape/record when doing field production work. The kits consist of the following equipment:
 - 4K HDR XDCAM with Fast Hybrid
 - Shotgun style microphone
 - Dual Channel Wireless Microphone System
 - Charging Case for Wireless GO II Transmitters and Receivers
 - Onyx 120 Bi-Color Aluminum On Camera LED Light
 - Compact Battery Charger
 - Headphones
 - Cable,XLR to XLR 25ft Black
 - Quick Rain Slick for Camera
 - Cable Right Ang 3.5mm-XLR 1ft
 - Windbuster f/Rode videomic GOII

Cost

Item	Quantity	Unit Cost	Total Cost
Fundamentals of Speech	90 students	\$51.69 with 20% discount	\$3,721.68
Estimated shipping cost			\$244.44
Adobe Premiere License	360 students	\$5.00	\$1,800.00
Canon camera SL3 kit	8 kits	\$728.99	\$5,831.92
Sachtler 752 Mark II Aluminum Tripod System	8 tripods	\$676.62	\$5412.96
Electronic New Gathering (ENG) kits	4 kits	\$3,712.48	\$14,849.92
Professional Learning (12 hours/teacher x 3 teachers x \$36.10 instructional rate per hour.	3 teachers	\$36.10 per hour	\$1,299.60
TOTAL			\$33,160.52

Cost

- Estimated ECC Tuition Per-Pupil Cost (for 90 students) is \$4,500.00.
- Estimated Annual Cost of Consumables is \$5,766.12.
- Estimated Per-Pupil Cost (for 90 students) is \$64.06.

Implementation Plan for All Academy Programs

- **2025-2026 School Year**
 - Approval of curriculum, resources, and assessments.
 - Initial professional learning and training on resources.
 - Material and supply purchase.
- **2026-2027 School Year**
 - Implement curriculum, resources, and assessments.
 - On-going job-embedded professional learning.
 - Utilize common assessment data to monitor implementation and determine professional learning needs.
 - Monitor resource data usage to ensure effective implementation.

Implementation Plan

- **2027-2030 School**
 - Monitor implementation of curriculum, resources, and assessments.
 - Continue offering professional learning.
 - Utilize common assessment data to monitor implementation and determine professional learning needs.
 - Monitor resource data usage to ensure effective implementation.
 - Review the efficacy of the program in preparation for renewal and revision.

Proposed Results

- Obtainment of industry credentials
- Obtainment of early college credit
- Obtainment of College and Career Pathway Endorsement (CCPE)

Plans for the Evaluation of Change

Data will be reviewed for all new courses to make shifts in professional learning, support resource utilization, and align with instructional clarity.

Data collected will include:

- Common assessment data
- Resource usage
- Dual Credit issued

Yearly evaluation of data and feedback on the relevancy of resources will be collected and used to inform curriculum adjustments and professional learning.

