

NYS P-TECH Orientation

WEBINAR #3: DEVELOPING A SCOPE &
SEQUENCE FOR NYS P-TECH



Scope & Sequence Plan

A Scope and Sequence provides the following:

- **Overview:** summarizes the full six years of coursework, work-based learning, etc.
- **Alignment:** clarifies the ordering of courses and experiences to ensure that students have all necessary pre-requisites to succeed at each step
- **Mandates:** confirms that students will be able to complete all requirements for high school graduation, the degree pathway, and professional skills



Developing a Scope & Sequence is part of the Backwards Planning Process

What specific jobs will graduates be eligible for? What skills will they need to succeed?

Which associate degrees are best suited to prepare students for those jobs?

What types of workplace experiences will students need as part of the school program?

What is the most appropriate sequence of courses and workplace experiences?

What type of support services need to be in place for students, parents, and faculty?



The Scope and Sequence requires collaboration among all partners

- **School District** ensures that curriculum meets high school graduation requirements
- **College** ensures that college courses meet specified degree requirements; clarifies eligibility requirements for college courses
- **Employers** identify key skills that entry-level employees need to be successful, co-develop work-based learning activities



Initial Decisions will drive the Scope and Sequence

- **Target jobs:** Before the P-TECH partnership is launched, identify the skills gap in the local economy and the entry-level job opportunities
- **Skills Map:** Work with the employers to understand the academic, technical, and professional skills needed for success in the target jobs (Webinar #2)
- **Degree Pathway:** Identify (or redesign) the Associate degrees that will deliver the necessary skills and experiences



NYS P-TECH Six Year Integrated Scope & Sequence (aka SYISS)

- Engage college leaders and employer partners from day one
- Begin with Skills Mapping and then plan backwards
- Identify the registered degree pathway that is the best fit
- Design a 6 year program, not 4+2 or 2+2+2, 6 year program, not 4 or 5
- Introduce college courses no later than 10th grade
- Include the number of courses required for the diploma and degree – no more and no less
- Provide a full continuum of Work-Based Learning
- Include only credit-bearing courses
- Require a maximum of 64 credits for the degree (SUNY)
- Review the SYISS annually with input from all partners



What is the Process for Developing the Scope & Sequence? (1 of 2)

Assemble all requirements:

- Courses required to graduate from high school,
- Courses required for the desired associate degree(s)
- Entry requirements and/or co-requisites/pre-requisites for college courses (e.g. scoring above an 80 on the English Regents exam)
- Expected internship/apprenticeship experiences



What is the Process for Developing the Scope & Sequence? (2 of 2)

Next, place courses & experiences in each year:

- Plan backwards from the final college course requirements
- Pay particular attention to co-requisites/pre-requisites
- Identify critical gateway courses for each major and plan backwards to include well-aligned high school courses and sufficient instructional time in the schedule for students to prepare
- Identify possible options for dual credit (for high school + college), e.g. replacing 12th grade English with English 101 and English 102
- Include time for work-based learning activities and internships
- If the program will offer more than one college major, create a common “trunk” in the early years with time to consider the options before students choose to “branch off” a single pathway



Visualizing the Scope & Sequence as it is Developed

- It is often helpful to use chart paper or white boards to visualize the Scope & Sequence as it is being developed
- Use post-it notes, note cards, etc. to try various arrangements and sequences
- Use colors and symbols to identify important features (e.g., high school versus college courses)

	9 th Grade	10 th Grade	11 th Grade	12 th Grade	13 th Grade	14 th Grade
English						
Math	Algebra	Geometry	Trig/Alg. 2	Pre-Calc	Calculus	Calculus 2
Science						
History						
Workplace Learning						
Arts						
Technology						



WBL Continuum (see Webinar #5)

Exploration

Activities designed to promote awareness of careers, workplace norms, and employer expectations, as well as personal interests and aptitudes.

"I understand what's out there and am discovering the kinds of things I might want to do."

Investigation

Activities designed to promote a deeper understanding of potential careers, and to provide opportunities for an investigation of a particular industry, career, or occupation of interest.

"I'm interested in this field and beginning to understand what it's all about and what I need to do to pursue a career in the industry."

Application

Activities designed to provide an in-depth discovery of a particular career and the development of the skills and understanding of the education or training needed in a particular industry or occupation.

"I know the kinds of things I want to do and am getting the chance to learn new skills and practice applying those skills."

NYSED Template for Six-Year Integrated Scope and Sequence (abbreviated)

	YEAR 1						YEAR 2					
	SUMMER		FALL		SPRING		SUMMER		FALL		SPRING	
ELA	Course:		Course:		Course:		Course:		Course:		Course:	
ELA Credits	HS:	College:	HS:	College:	HS:	College:	HS:	College:	HS:	College:	HS:	College:
Math	Course:		Course:		Course:		Course:		Course:		Course:	
Math Credits	HS:	College:	HS:	College:	HS:	College:	HS:	College:	HS:	College:	HS:	College:
Science	Course:		Course:		Course:		Course:		Course:		Course:	
Science Credits	HS:	College:	HS:	College:	HS:	College:	HS:	College:	HS:	College:	HS:	College:
Technology	Course:		Course:		Course:		Course:		Course:		Course:	
Technology Credits	HS:	College:	HS:	College:	HS:	College:	HS:	College:	HS:	College:	HS:	College:
Social Studies	Course:		Course:		Course:		Course:		Course:		Course:	
Social Studies Credits	HS:	College:	HS:	College:	HS:	College:	HS:	College:	HS:	College:	HS:	College:
Physical Education	Course:		Course:		Course:		Course:		Course:		Course:	
PE Credits	HS:	College:	HS:	College:	HS:	College:	HS:	College:	HS:	College:	HS:	College:
Health	Course:		Course:		Course:		Course:		Course:		Course:	
Health Credits	HS:	College:	HS:	College:	HS:	College:	HS:	College:	HS:	College:	HS:	College:
Arts	Course:		Course:		Course:		Course:		Course:		Course:	
Arts Credits	HS:	College:	HS:	College:	HS:	College:	HS:	College:	HS:	College:	HS:	College:
Language	Course:		Course:		Course:		Course:		Course:		Course:	
Language Credits	HS:	College:	HS:	College:	HS:	College:	HS:	College:	HS:	College:	HS:	College:
Workplace Learning	Description:		Description:		Description:		Description:		Description:		Description:	
WPL Credits	HS:	College:	HS:	College:	HS:	College:	HS:	College:	HS:	College:	HS:	College:
Pathway Specific College Course	Course:		Course:		Course:		Course:		Course:		Course:	
PSCC Credits	HS:	College:	HS:	College:	HS:	College:	HS:	College:	HS:	College:	HS:	College:
Pathway Specific College Course	Course:		Course:		Course:		Course:		Course:		Course:	
PSCC Credits	HS:	College:	HS:	College:	HS:	College:	HS:	College:	HS:	College:	HS:	College:
Pathway Specific College Course	Course:		Course:		Course:		Course:		Course:		Course:	
PSCC Credits	HS:	College:	HS:	College:	HS:	College:	HS:	College:	HS:	College:	HS:	College:
Pathway Specific College Course	Course:		Course:		Course:		Course:		Course:		Course:	
PSCC Credits	HS:	College:	HS:	College:	HS:	College:	HS:	College:	HS:	College:	HS:	College:
Credits Per Semester High School/College												
TOTAL CREDITS ACCRUED High School/College	HS:		College:		HS:		College:		HS:		College:	



Who needs to approve the Scope & Sequence?

All partners should review and agree to the Scope & Sequence

- **School District:** Does the program meet all high school graduation requirements?
- **College:** Does the program meet eligibility requirements for all college courses and specified degree requirements?
- **Employer:** Does the program provide the work-based learning experiences necessary for students to master professional skills?
- **State Education Department:** Does the SYISS comply with high school diploma and degree pathway requirements and NYS P-TECH expectations?



What Happens Next? (1 of 2)

Once the initial Scope & Sequence has been developed and approved, it can be used to plan additional elements of collaboration:

Curriculum Development:

- High school and college faculty can work together to develop curriculum that is aligned throughout the sequence
- Teachers within the same grade level can develop cross-disciplinary projects
- Industry professionals can work with teachers and professors to develop projects aligned with real world tasks

Professional Development:

- High school faculty, college faculty and industry professionals can all learn about the norms and requirements of each partner's milieu



What Happens Next? (2 of 2)

Student Supports:

- Partners collaborate to develop a college environment (from vocabulary to programming to expectations) at the high school
- Additional time is provided for academic mastery and social and emotional maturity
- Partners identify all potential resources at the high school, college, and work sites to ensure greater success

Assessments/benchmarks:

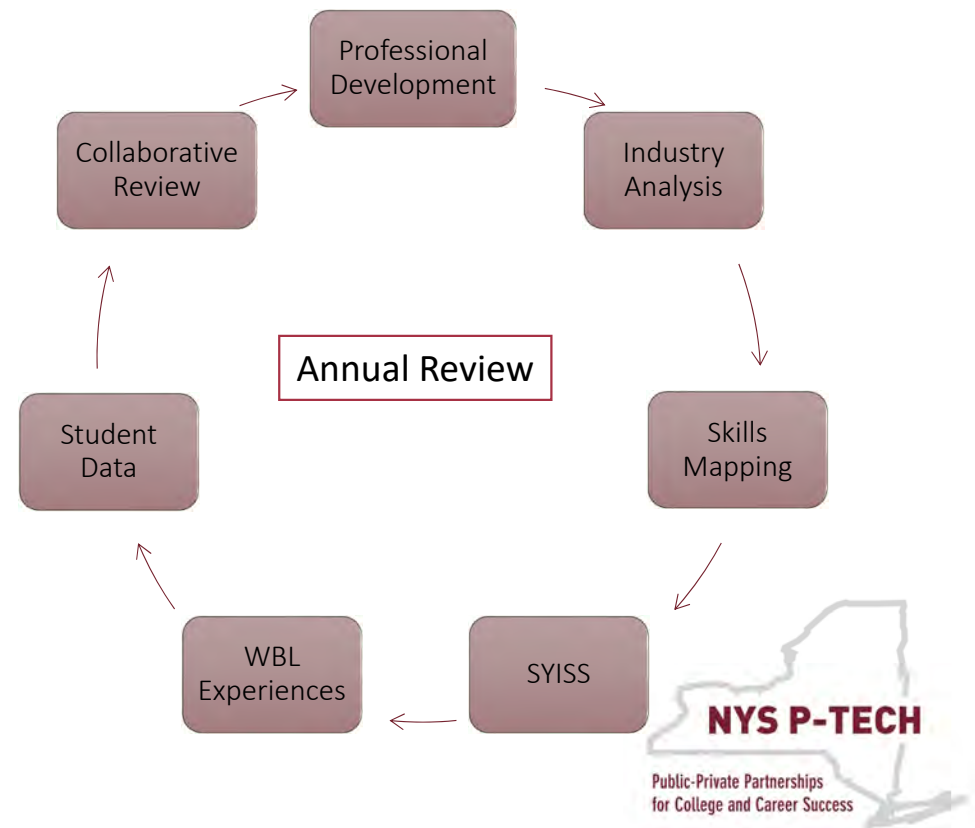
- High school teachers can work with partners to identify appropriate assessments that can serve as milestones or benchmarks for student progress



How often do you revisit the Scope & Sequence?

The Scope & Sequence is a living document and should be reviewed frequently.

- Course selections may change due to student performance or changes in degree requirements
- Pacing may change to better support students
- Internship opportunities may demand skills be taught at different times



Thank You!

WEBINAR #3: DEVELOPING A SCOPE & SEQUENCE FOR NYS P-TECH
IS PART OF THE SIX WEBINAR SERIES: NYS P-TECH ORIENTATION
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